A SURVEY
OF
MATAR TALUKA

J. C. Kumarappa

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But the most characteristic feature of the rural masses of India is, of course, their poverty.

In any case it is clearly a fact that a large proportion of the inhabitants of India are still beset with poverty of a kind which finds no parallel in Western lands, and are living on the very margin of subsistence.

India, 1929-30 p. 115–116.

Come inside India, . . . see it with your own eyes, understand it, think over it, turn your face towards it, become one with it

Rabindranath Tagore

G:L:1

Prefatory Note

I have great pleasure in presenting to the public a detailed and a scientific survey of a typical taluka of the fair province of Gujarat prepared by my friend and colleague Prof. J. C. Kumarappa on behalf of the Gujarat Vidyapith.

In an informal note which Gandhiji handed to me he had expressed a desire that Indian Economics should be built from the bottom by the *a posteriori* method of securing rock bottom facts and drawing therefrom, by the most rigid process of reasoning, scientific conclusions which no amount of jugglery could controvert. He gave in that note a number of practical hints for the conduct of such a survey.

In the same year Sjt. Nagindas Amulakhray of Ghatkoper, Bombay, gave a magnificient donation of a lac of rupees to the Vidyapith for

starting a school of village service. The Vidyapith availed itself of this facility, and set apart a sum of Rs. 4000 for such a survey and appointed a strong committee with Sardar Vallabhbhai J. Patel as Chairman. For many reasons Matar taluka was selected. The Kaira District of which Matar Taluka is a part is populated by industrious, fairly cultured and self-respecting farmers who are the flower of the peasantry of Gujarat, a province which was known as the garden of India even in the days of the Moghuls. For many generations they have been used to conducting their own civic affairs and to maintaining works of public utility. But the village organisation, the public tanks, the management of the funds of the commune, the temple and the other public charities go to show that the population is fairly accustomed to a life of peace and prosperity. For over a decade the peasants of Kaira have been complaining that the Land Revenue Policy of the Government is hitting them hard, and that they have been finding it increasingly difficult to make both ends meet. It always happens that when a strong central Government follows a policy of extortion and calousness, the pepole get devitalised. Not daring to oppose or offend the might of the central government they gradually get disorganised,

their discontent taking the form of internecine quarrels. The Government, instead of taking a warning and mending its policy, condemn the people as turbulent and given to crime. It is always easy for governments to treat effects as causes. Matar taluka was once known to be prosperous and happy. It is an alluvial taluka watered by as many as four rivers. It ought to be able to resist the direst famine, but today, rains or no rains, the people have to live in a state of chronic famine. Matar taluka perhaps typifies the whole of India.

Prof. Kumarappa, an Incorporated Accountant, whose opinions on finance command considerable acceptance and influence, was appointed to direct the survey of this taluka. He patiently gathered the statistics directly from the peasants themselves with a care and scrutiny all his own. It took him over three months to gather all the necessary information, nine students of the Vidyapith were constantly at his service in addition to two professors of the Vidyapith who assisted him off and on in the collection of the statistics. He worked at his figures for a further term of about eighteen months digesting his material and ruminating over his conclusions. The Committee then studied and discussed the Report. The Report, therefore, is presented to the public as an authoritative document on the economic condition of a typical taluka of

Gujarat. The reader will find that the statistics presented here in careful schedules are even more eloquent than the main body of the carefully worded and lucid Report itself. It is a silent criticism of the British Administration in general and of the Revenue, the Irrigation and the Agricultural Departments in particular, it is a vivid picture of the slow process of exploitation, emasculation and perhaps decimating of a patient and peaceful population.

The Report, by its very nature, is not an intensive survey. It merely records the actual state of affairs in the accurate language of figures and interprets it for the lay reader. Nor does it go into the details of the remedies to be applied. The peasants have despaired of all ordinary remedies. They are convinced that Swaraj alone can restore them to their natural life of peaceful industry and happy simplicity enjoying the products of their labour. During the last year's Civil Disobedience movement Government repression worked with a special virulence in the Matar Taluka thus driving the lesson home to the peasants that only in Swaraj lay their hope.

Survey work has been getting somewhat popular during recent times. The pioneer work of veterans like Dadabhai, Digby and Dutt was done during a generation that was not clear in its mind as to the goal to which India

was to aspire. They, therefore, had to struggle hard to overcome, on the one hand the apathy of the people and on the other the selfishness and greed of the ruling classes, who refused to be convinced by arguments that went against their self interest. Later works have brought the scientific investigation of the economic conditions in India up to date, but they take their statistics from Government records and perhaps bring to bear on these borrowed facts their preconceived economic notions. If there is one thing that characterises the educated man in India and distinguishes him from his *confrere* elsewhere, it is his abysmal ignorance of the actual rural conditions in his own country. There are some people who are anxious to see India industrialised. Others there are who will be content if India got back her own. But neither of them have secured the bed rock of statistics collected from the mouths of the peasants themselves. The present survey is unique in this repect. Prof. Kumarappa has walked for miles at a stretch for collecting these facts and statistics. He has studied the situation on the spot, made friends with the peasants whose conditions he investigates in this Report and he had the advantage of again and again sending his trained students to verify and supplement his facts whenever there was a doubt or deficiency. The survey,

therefore, gives the conclusions of a trained mind working on solid facts without any preconcieved notions or favourite theories to support.

The Indian peasant knows no accounts. He, like his exemplar the Indian sage, has always worked without any thought of the fruit of his work. The average middle class people were so far almost dead to a sense of their corporate responsibility; and the Government Departments never felt that they were there in the interest of the people whom they pretended to serve.

The reader will notice that the Government Departments which ought to serve the needs of the farmers are functioning in a world of their own. But the Department entrusted with the raising of revenues is performing its duties with a vengeance. Even the Irrigation Department appears to be organised to flood the Government treasury rather than the fields, as large areas of their tanks are but dry fields. Prof. Kumarappa aptly calls this Department the "Dry Irrigation Department."

As regards the Agricultural Department, we were not surprised to hear that the farmers were not even aware of its existence; for, even a friend of India like Dr. Harold H. Mann, the late principal of the Agricultural College in Poona, deplores that

some of the remedies for dealing with pest available at the College were not known in the villages within a radius of five or six miles of the College. Whose fault is this? In other parts of the world Agricultural Departments exist to carry out experiments and disseminate knowledge in the language of the farmers. But in India it is an expensive spending Department, supplying statistics and information in a foreign tongue for the benefit of prospective exploiters. Unless our Agricultural Department is run by actual farmers who know what it is to go hungry if they cannot make the land pay, there can be no hope of any service being rendered by highly paid officials.

Happily the present survey is reaching a public that is wide awake and that is determined to improve the lot of the poor. It will, therefore, have not only a wider circulation but a greater effect also on the minds of the people. It will strengthen their determination to carry the fight for freedom to a finish and thus liberate the patient farmer who like the giant Atlas bears the burden of the whole earth.

Ahmedabad,
21 Dec. 1931

D. B. Kalelkar
Acharya, Gujarat Vidyapith.

Preface

In the latter part of 1929 a Committee was appointed by the Gujarat Vidyapith to carry out an economic survey into the conditions of the peasants of Matar Taluka with the following members:

Vallabhbhai J. Patel:	*Chairman*
Dadubhai P. Desai	
Ramnarayan Pathak	
J. C. Kumarappa:	*Director*
Mahdev Desai:	*Secretaries*
Narhari D. Parikh:	

The field work commenced early in December 1929 with nine students from the Gramseva Mandir as helpers. After visiting the various villages, the field work was completed on the 11th of March 1930. But owing to the 'Satyagraha Movement' having been launched out soon afterwards and as practically all our helpers had joined the struggle, the tabulation of the statistics has been considerably delayed, and therefore, it has not been practicable to publish this report earlier.

In our survey work, we were ably assisted by leaders of the taluka such as Sjts. Ishwarbhai J. Patel, Keshavlal B. Shah and others. We gratefully acknowledge their services, without

which our survey could not have attained any measure of success. We have to thank Sjts. Ambalal S. Patel, Thakorbhai M. Desai, Vithaldas M. Kothari and several students of the Vidyapith for rendering valuable help in the collection of statistics. In particular, we would like to mention Sjts. Jhaverbhai Purushottam Patel and Tryambaklal Bhagwandas Bhatt, who have ceaselessly laboured at the prosaic work of tabulating statistics for over twelve months. But for the help of these two students, it would not have been possible to produce the report even now. We are also thankful to the several farmers of this taluka who have given particulars of their own family affairs in the interest of the public.

Owing to the troublous times during which this work had to be done, and owing to the suspicion with which the government looked upon us, it has not been possible to obtain that measure of co-operation from the government officials and access to all the government records that we would have wished for, to make this report complete in every respect. Inspite of this handicap, we trust, the picture, as presented in the following pages, will help to reveal the hardships and hopes of the people of the taluka.

Gujarat Vidyapith
Ahmedabad
September, 1931

J. C. Kumarappa

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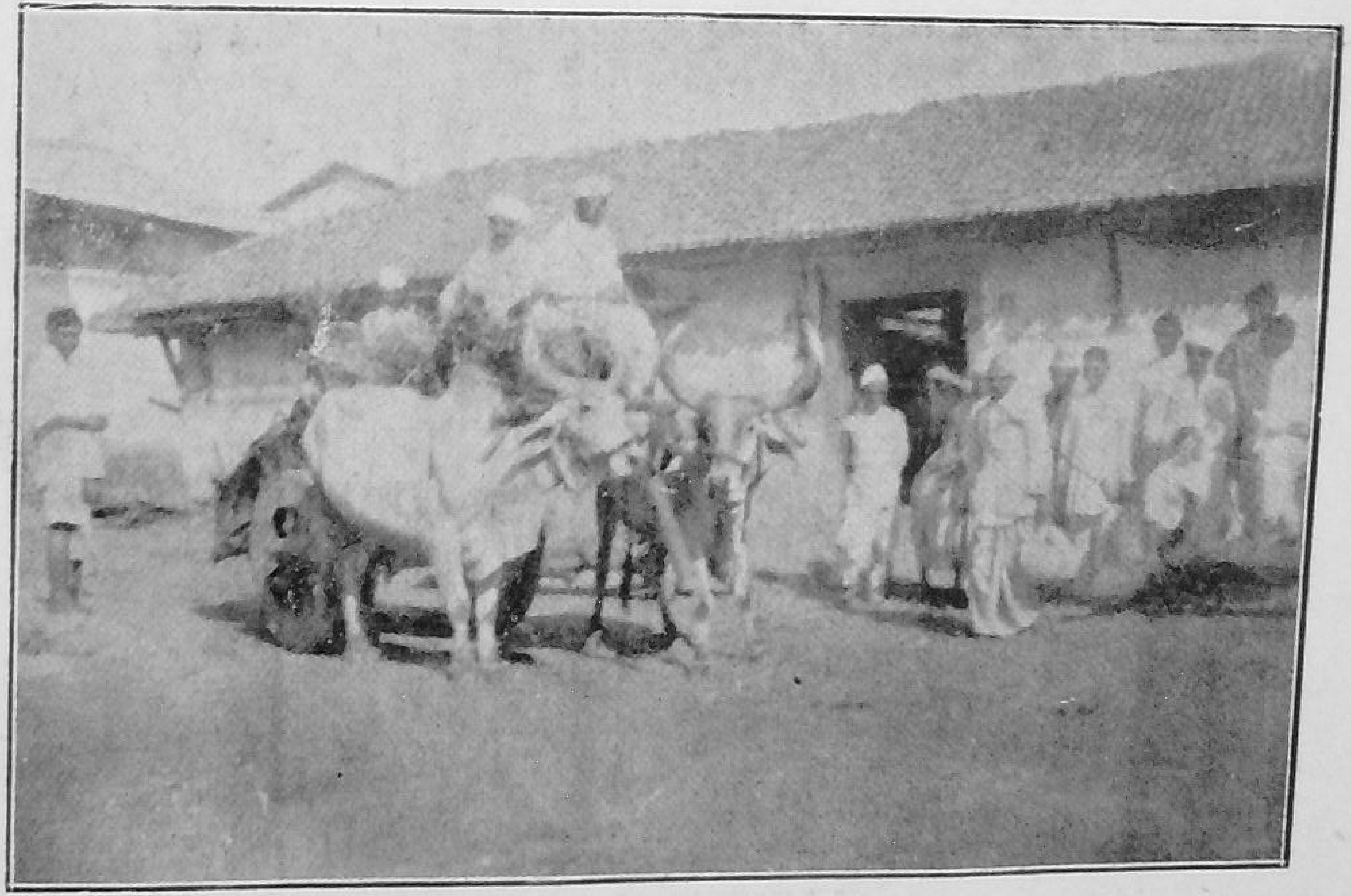


THE SURVEY PARTY OUTSIDE LIMBASI DHARMASHALA

INTRODUCTION

Method Adopted

The surveying party camped in dharmashalas of large villages and carried out surveys of the villages round about. Central camps used were Limbasi, Moraj, Navagam, Radhu, Matar and Alindra. We have surveyed 54 villages. We did not coerce any body to give us statements of their affairs. We did not aim at getting statements from every one in the village, but rather depended on those who would volunteer to give us the information. By doing so, we believe, we have obtained a larger measure of truthful and reliable statements as these statements have come from the enlightened members of the village who appreciate and understand the nature of our work.

The tables in appendix B. show the number of villages examined, population of such villages, and the number of statements taken in each village. We have met with a good deal of resistance mainly through the officious interference of

government servants. Apart from this, the people heartily co-operated in the work, as Gujarat Vidyapith and other national organisations had secured the goodwill and confidence of the people by their timely aid and service during the floods of 1927. The field work took us over 3 months and our party averaged about a dozen persons.

This survey is not intended as an intensive survey, but rather, to give us a bird's eye-view of the taluka as a whole. Based on the findings of our survey, we trust more detailed and concentrated inquiries will be carried out in limited areas in regard to specific subjects.

Physical Features

At one time, Matar was one of the richest talukas of the district. Of recent years the taluka has become economically very unsatisfactory. It was because of this that this particular area was chosen for the survey. The taluka comprises of 82 villages covering 216 sq. miles, with a population of about 56,000 people. A few of the villages form an island in the south in State territory. The surface is fairly level and is watered by four rivers—the Sabarmati, the Watrak, the Khari and the Shedhi, and as the land is low lying it is liable to floods by the rivers overflowing in years of heavy rainfall. The average

rainfall for the last five years is 28.17 inches excluding the year1927 which was the flood year.

In the southern parts of the taluka, goradu soil abounds and in the northern parts there is a larger percentage of kyari land. Extensive areas are subject to salt efflorescence, particularly near Limbasi. As a matter of convenience we are considering the taluka in three groups of villages, those in the south, round about Limbasi, representing dry cultivation, those in the north, with Navagam as centre, representing cultivation by irrigation and those about Matar in an intermediate state.

The People

The most important agriculturists in this taluka are the Patidars. The Patidars are known all over Gujarat for their industry, enterprize and intelligence, while the Dharalas, who form the second most important agriculturists, are not so well endowed and as a class they are not so financially sound. They also supply field-labour when necessary. In a number of villages, there were considerable numbers of Moslem agriculturists who lived in amity and goodwill with the other communities. On the whole, we may say, that the Moslem cultivators are better off than the Dharalas. There is a small number of agriculturists who claim to have descended from the Rajputs. They are called Garasias. As

efficient agriculturists these Garasias rank next to the Patidars. Various communities and castes such as Brahmins, Banias, Thakkars, Shepherds, Dheds, Chamars, Barbers; etc. also derive income from land.

The population of the taluka shows a steady decline as the following figures indicate:

1891	79,080
1901	61,522
1911	58,705
1921	56,056

This decline is not the result of emigration but it is rather due to a higher death rate consequent upon want of vitality and dire poverty. The people state that because of the low financial condition of the families they are unable to get brides.

Period Covered by the Survey

In Limbasi group our survey takes in the period from May 1928 to April 1929, while in Navagam and Matar groups we have taken the succeeding year, namely, May 1929 to April 1930 as our basis.

CHAPTER I

CROPS AND CULTIVATION

"*Agriculture, cattle tending, and trade supply all men with the means of subsistence.*"

Mahabharata — Shanti 89-7.

In this taluka the three main classes of soil that one meets with, are Kyari, Goradu and Black Soil. In Kyari paddy is usually grown as a kharif crop, and, if there is sufficient dampness in the soil, wheat can be grown as a Rabi crop. In Goradu land Bajri, Bavto, Kodra, Jowari, Tuver, Cotton, Castor Seed, Sesamum, Pulses, (Mag, Math, Choli), Guwar and Tobacco are raised. In Black Soil, generally only wheat is grown, and in dry years Cotton is raised. Where available, a good combination of soils, which can be cultivated conveniently will consist of six acres of Kyari land, seven acres of Goradu and twelve acres of Black Soil. Kyari and Goradu lands are ploughed about the beginning of the monsoon, while Black Soil is ploughed in the winter.

The area that could be cultivated with one pair of bullocks depends largely on the kind of soil which the farmer possesses. Many farmers own pieces of land of different soils, owing to the fragmentary nature of their holdings. The extent also depends on the location of these holdings. In Navagam group of villages, which cultivate generally paddy, the unit of cultivation with a pair of bullocks is necessarily much smaller ranging from five to fifteen acres, as compared with twenty to twenty five acres of the other sections of the taluka. Apart from the nature of the soil and fragmentary holdings the unit also depends on the quality of the animals. The above estimation of units are made on the basis of a pair of bullocks that could be bought for two hundred rupees.

Decrease in Cultivated Area

In some of the villages the lands under cultivation are being relinquished as the reveune assessment is too high and, where there is waste land, Government does not extend any encouragement to bring such land under crops. This state of affairs is clearly brought out in the villages of Asamli and Palla. In Asamli, the unoccupied land has increased from 526 acres in 1896 to 1883 acres in 1916. The reason for this is that after a flood, lands were allowed to lie idle for a while and babul

jungles have sprung up everywhere, harbouring pigs, rozes, monkeys etc. which devastate the fields round about. People relinquished their rights to the land to escape liability to land tax and these lands are still waste or covered with babul jungles. People have been applying for these jungles and are prepared to clear them for cultivation at their own cost if the government will give them the land. Instead of encouraging the people to bring more land under cultivation and rid the locality of the pest of wild animals by allowing them to occupy land, even by giving the land tax-free, as is done in western countries, it is pursuing a "dog in the manger policy" and is calmly looking on when the people are suffering from extreme poverty. The government does not seem to show any interest in increasing the productivity of the people. One man has even paid Rs. 200 for the survey expenses of the government and though now five years have passed he is no nearer getting any land. At Palla, on the river side, about 10 acres lie waste and cattle, which come to graze there, damage the crops in the neighbouring fields. One of the farmers so affected, offered to take up this waste land even at the same assessment as that of his own cultivated land i. e. Rs. 2 per acre. The soil is sandy and ground uneven, yet, the government insisted on Rs. 8-8as. per

acre. Even at this high rate he took up four acres to save his own crops. On this piece of ground, he grew castor seeds worth Rs. 9, but had to pay the government land revenue of Rs. 35. He has now given up that land.

To add to these difficulties—wild animals and official calousness,—villagers are still further hampered by reserved forests maintained for the purpose of game. Adjoining the village of Khanpur there is a large preserve maintained by the Nawab of Cambay, who has a hunting box erected there at a cost of about one lakh of rupees. Many wild animals from this forest damage the crops of the surrounding villages.

Improved Implements

There is a great deal of talk about increasing the productive capacity of the farmers by introducing improved implements. Our farmers, as a rule, use only the centuries old methods of ploughing etc. We did come across one or two villagers who had seen exhibits at Ahmedabad Exhibition and obtained some B. T. improved ploughs, but they had no hesitation in pronouncing them hopeless failures under present circumstances. These ploughs require two pairs of strong bullocks, and even then, they plough only two inches deeper than the ordinary wooden plough, which ploughs about 4 inches deep. For an increase of 30 percent depth, the

expense is more than double and apart from the depths of the furrows, deeper ploughing needs heavier manuring, and heavier manuring, in its turn, needs a greater quantity of water. The farmers are loathe to enter upon any fresh venture which entails financial risks. These heavier ploughs, however, are said to be most valuable in preparing virgin soil.

One family of farmers in Navagam, who had about 500 acres of land, had imported an American tractor five years ago for Rs. 4,500. This tractor can plough 5 acres a day, while an ordinary wooden plough ploughs about 5/16 of an acre per day. They used the tractor for clearing virgin soil but for ordinary ploughing of cultivated lands they find the tractor too expensive and so, are now using bullocks while the tractor lies idle. They will be glad to dispose of it for a song, if they can find a customer.

The irrigation pumps and Persian wheels are discussed in our chapter on well-irrigation.

As most parts of India seem to be in the same state as this taluka as regards the use of improved implements, we quote below impressions of some other surveyors.

Aladar

" Looking to the resources of the people we feel that it is practically impossible for them

to own and use modern instruments. We hold that if suitable improvements are introduced in the existing types of implements, they can be adopted by the people by forming a co-operative society."[1]

Pimpla Soudagar

"The general opinion formed and expressed with regard to them (modern iron ploughs) is that they are efficient on land in fairly dry condition, and are well worth having under such conditions, as they do better work with less expenditure of bullock power. When the land is wet and sticky, the people consider that there is no advantage and that the country wooden plough answers as well or better."[2]

Gagar Bhana

"There are two kinds of ploughs, the Hal and the Halar. Neither of these ploughs very deeply and the furrow is not turned in the same way as it is by an English plough. Nevertheless, frequent ploughing by either of these ploughs pulverises the soil in a way which is not done by the English plough and the results can be very successful."[3]

Mysore Malnad

"Improved ploughs our bulls are too weak to draw. Steam tractors are out of the question

1 G. C. Mukhtiyar's *Economic Survey of Aladar*. p. 45.
2 Dr. H. Mann's *Land and Labour in a Deccan Village* P. 66.
3 *Punjab Village Surveys*. No. 1 p. 30.

where the level of the land is uneven and where holdings consist of acres and fractions thereof."[1]

"Heavy ploughs would mean the killing of the golden goose. In dry lands the case of black cotton soil is different. Deep furrows and broad slices of soil overturned would mean the escape of the little amount of moisture which would under shallow ploughing continue in the soil and help the crops. Repairs to modern implements would also cost a great deal and skilled knowledge would be required in handling the implements."[2]

"Investigations in the Mysore Malnad (a notable agricultural tract) showed the writer that in processes the ryot did not require any reform, but it was in his general environment. This opinion is supported by* J. Mollison, in his treatise on Indian Agriculture. 'To those who are sceptical, I can show, in parts of the Presidency, cultivation by means of indigenous tillage implements, which in respect of neatness, thoroughness and profitableness, cannot be exceeded by the best gardeners or the best farmers in any other part of the world. This

1 Keshav Iyengar's *Studies in Indian Rural Economics.* p. 44

2 *Ibid* page 46.

* Mr. Mollison was at one time Director General of Agriculture in India with a previous experience of 11 years in the Bombay Presidency.

statement I deliberately make, and I am quite ready to substantiate it.' "[1]

The Royal Commission Report on Agriculture (1928) says. "Agricultural implements in India are, on the whole, well adapted to local conditions. They are within the capacity of the draught oxen, comparatively inexpensive, light and portable, easily made, and what is perhaps of even greater importance, easily repaired, and they are constructed of materials which can be readily obtained. Inspite of these advantages, there is undoubtedly very great scope for improvements in the light of modern knowledge of soil conditions. The Agricultural Departments have, however, so far done disappointingly little in this direction."

As a rule, all mechanical aids to agriculture are as yet not manufactured in India and so have to be imported. The present resources of the farmer do not warrant his embarking on experiments owing to the heavy cost of improved implements. If implements could be devised to suit local conditions, and turned out by local manufacturers at a price which will bring them within the reach of the average farmer, if manuring could be made more efficient, if further irrigation is made possible, and if present scattered small holdings could be consolidated, then experiments with improved

1 Keshav Iyengar's *Studies in Indian Rural Economics*, p. 47.

implements would come within the range of practical agriculture.

No encouragement is given to the manufacture of agricultural implements in India by the tariff policy of the government. Most agricultural implements and machinery come into India free of duty. This is evidently meant to encourage the import of foreign manufactures. A high protective duty on imported iron and steel increases greatly the cost of manufacturing improved implements in India. Referring to this point, the Royal Commission on Agriculture state "The scope for the use of improved implements is so great that it is most desirable that manufacture in India should be encouraged. If it is found that the handicap imposed by the duty on his raw material is at all serious we consider that he might be given a rebate on any iron or steel which he can show to have been imported for the manufacture of agricultural implements and machinery."

Seeds

Only a very small number of farmers appear to take any trouble in selecting seeds, and even where such selections are made, the process appears to be limited to winnowing and sieving. In this matter, as in most other agricultural processes, practically no help is rendered by the Agricultural Department. In

fact, most of the village people were not cognisant of even the existence of such a department. To improve agriculture, one of the main efforts should be to improve seeds by a process of selection and experimentation. In countries, where the government is solicitous as to the welfare of the peasants, the Agricultural Department, in conjunction with enterprising farmers, holds exhibitions and fairs where prizes are given for the best cultured products, and where seeds to produce such products are also sold. By such encouragement and dissemination of information, it is sought to increase the production of the farmers. But in our country, the Agricultural Department is mainly a spending department, where high paid officers, foreign and Indian, obtain sinecures.

At Matar there is an Agricultural Association of which the taluka Mamlatdar is the president. Membership is Re. 1 per year or Rs. 10 for life. It has no nursery where experiments may be carried on, but it is merely a distributing agency. Even this function is very imperfectly carried out, as a person, who wishes to buy seeds has to go all the way to Matar town and buy for cash, while at his very door, seeds are available from the village Bania on credit. Hence, this association has met with little success. The seeds are compratively good, but the cost is much higher

It does supply a limited quantity of seeds free
It does supply a limited quantity of seeds free
for cultivators to try out. The association seems to restrict itself to crops which are mainly for export, such as Cotton, Tobacco and Wheat, while crops, which are used locally for food, such as, Bajri, Bavto, Kodra, Rice etc. do not command its attention.

The Banias who supply seeds on credit expect 25 percent more grain returned to them by way of interest. This transaction, as it requires no cash capital, is more attractive to the farmers generally. As a rule, the Patidars, who form the better class of farmers, preserve part of their previous year's grain for seeds, while the Dharlas and others, who are financially weak, find the claims for food too heavy on their stock of grain to enable them to save their own seeds.

Enforced Idleness

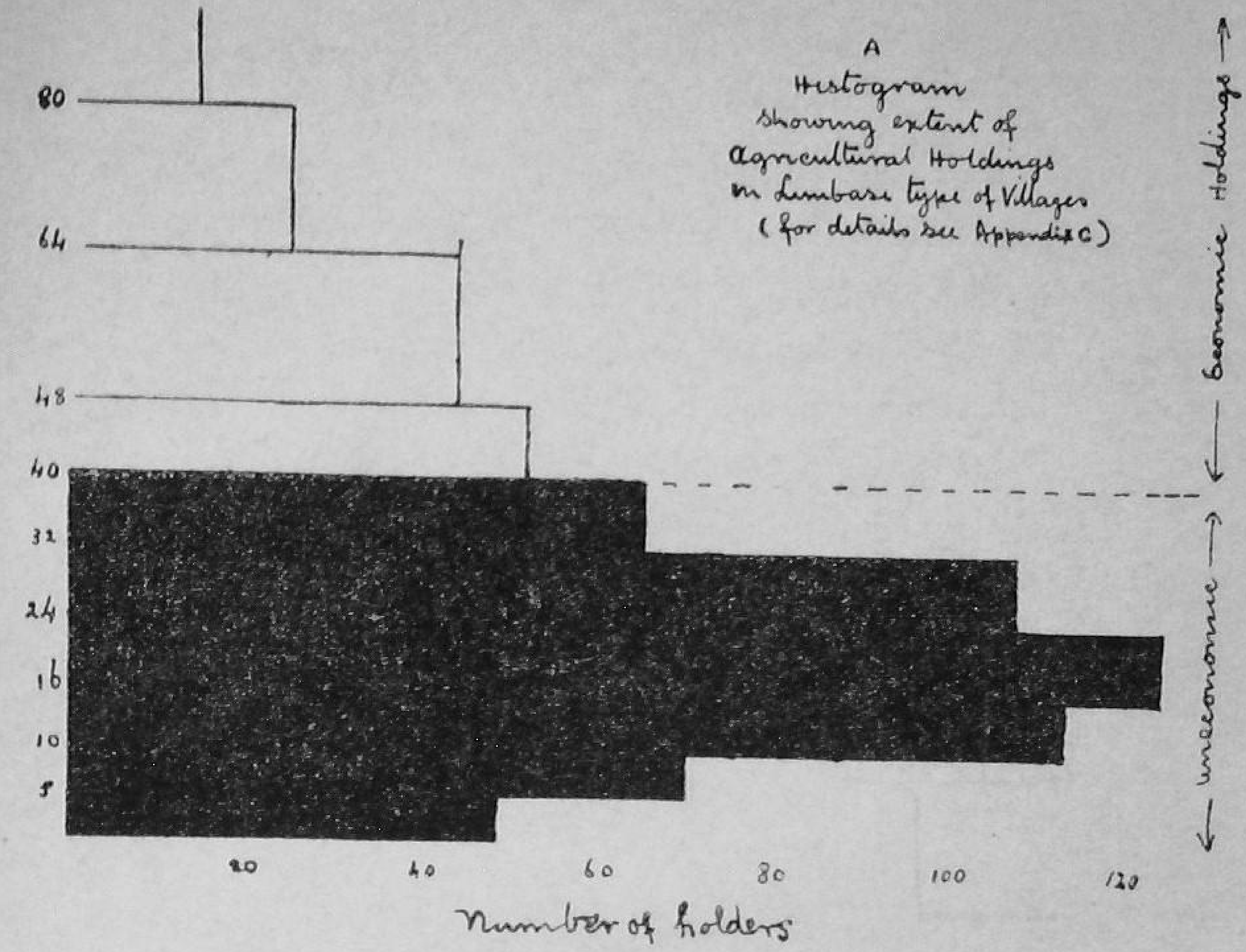
In Schedule I will be found the manner in which an agriculturist occupies his time during the year. We have taken three villages Limbasi, Navagam and Khandhali, representing three different types of agriculturists of Matar Taluka. The Unit of cultivation differs in the three villages.

Limbasi

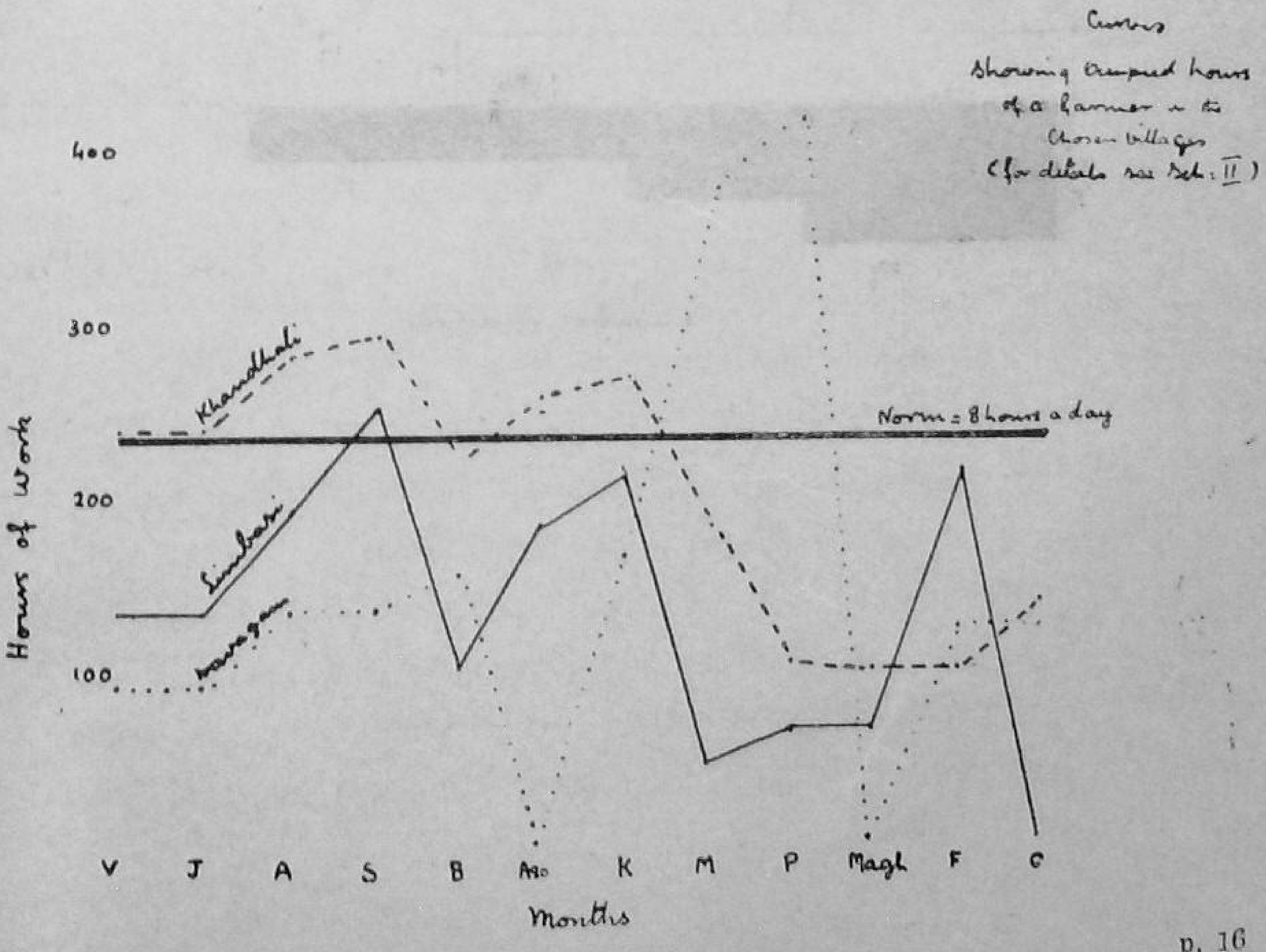
In Limbasi, it is considered that an agriculturist with two working members in the

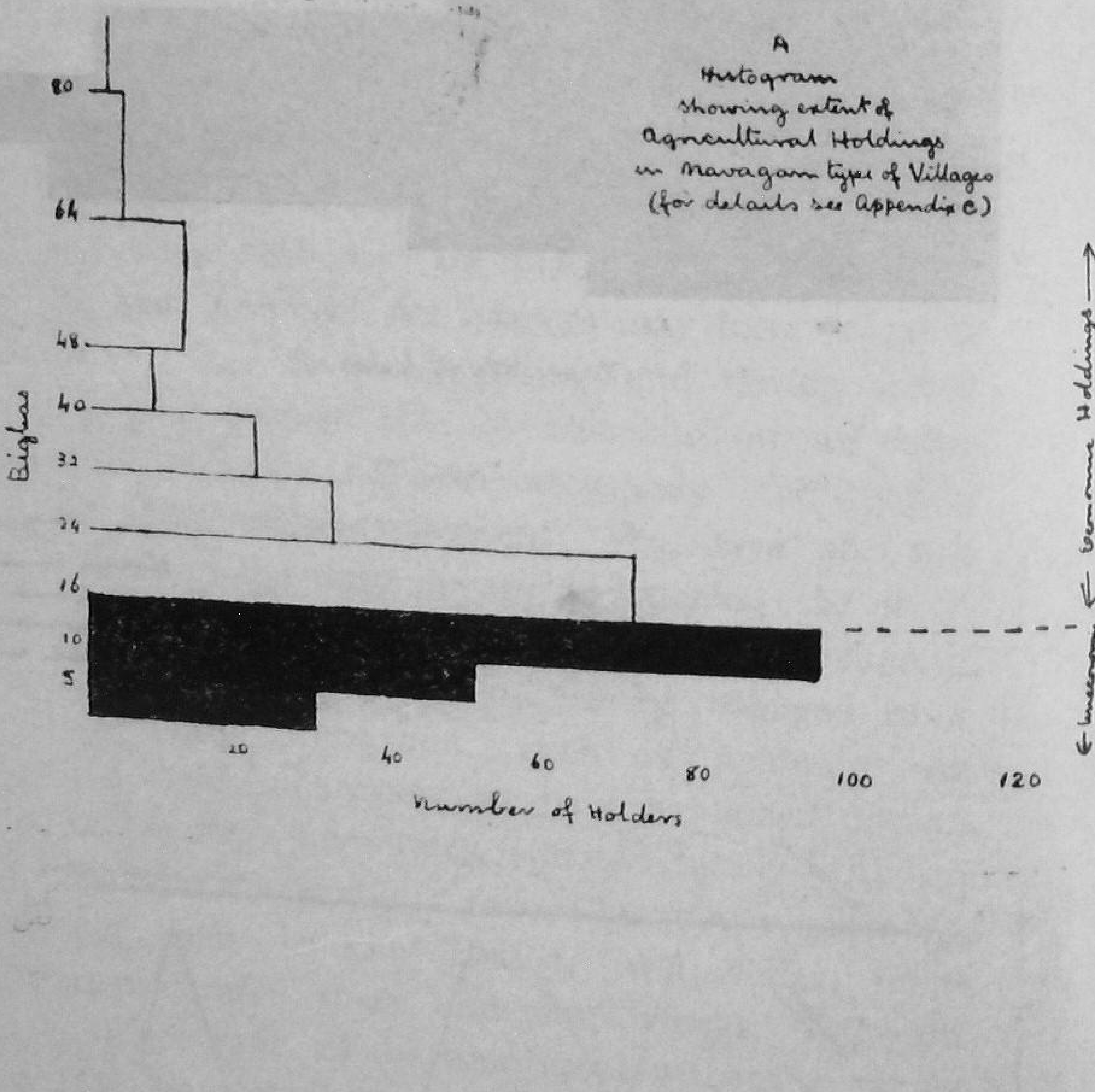
family can cultivate 25 acres with one pair of bullocks. This is really an ideal condition as it will be seen from schedule II that only 157 families, out of 436 families, satisfy this condition. That is, 64 per cent of the families have, what may be called, uneconomic holdings. Even this ideal family as shown by the calender is underemployed to the extent of three months and is unemployed to the extent of two months in the year and their bullocks seven months. In calculating this, we have counted by days and not by hours, as during busy seasons many of the farmers may have to work more than 8 hours a day and during other seasons less; so that to calculate on an hour basis will not disclose accurately the period of their underemployment. We have also not reckoned the time spent in watching the crops as full time employment, as during such time, it is possible for the farmer to be engaged in a subsidiary occupation, such as spinning. As the underemployment, we have mentioned, applies to the most favourably situated family with an economic holding, it follows that the other 64 per cent of the families will suffer more considerably from underemployment. Although 40 per cent of the time spent without work for the men is serious, yet the position as regards their bullocks appears still worse. What with the loss of earnings from transportation of the

I


A
Histogram
showing extent of
Agricultural Holdings
in Limbasi type of Villages
(for details see Appendix C)
Economic Holdings
uneconomic
80
64
48
40
32
24
16
10
5
20
40
60
80
100
120
Number of holders

V


Curves
Norm = 8 hours a day
Khandhali
Limbasi
Hours of Work
400
300
200
100
V
J
A
S
B
K
M
P
Magh
F
C
Months


A
Histogram
showing extent of
Agricultural Holdings
in Navagam type of Villages
(for details see Appendix C)
Bighas
80
64
48
40
32
24
16
10
5
20
40
60
80
100
120
Number of Holders
Economic Holdings

SCHEDULE I

CALENDAR

Table 1—Limbasi

The family is assumed to include two field workers, and to own a pair of good bullocks, and the unit of cultivation is taken to be 25 acres made up of:—

Black soil	11 acres
Goradu	8 ,,
Kyari	6 ,,
	25

Month	Nature of Work	Men in days	Bullocks in days	Number of labourers
Vaishakh to *Ashad* half. (May, June and early July)	Hoeing black soil to clear shrubs. Repairing hedges and kyari bunds and clearing the margins in goradu and kyari. Clearing kyari fields of Jawasa shrubs. Manuring and Hoeing kyari fields. Preparing seed-beds for Bavto and Paddy. Sowing Kodra and ploughing down the remaining goradu and kyari land.	45½	25	nil
Later *Ashad* (later July)	Hoeing Kodra, ploughing kyari land and fields for Bavto and Jowari. Sowing Bajri, Cotton and Jowari.	12½	12½	,,
Shrawan (August)	Transplanting Bavto and Paddy. Hoeing Bajri, Cotton and Kodra. Weeding Bajri and Kodra.	30	23	142
Bhadrapad (September)	Weeding Kodra, Cotton, Bavto and in kyari fields, Hoeing Jowari, Cotton Bavto, Kodra and Bajri.	22½	9½	59
Ashwin (October)	Weeding Bavto. Cutting Bajri, Kodra, Tal, Jowari, Bavto and Paddy. Tieing bundles of these crops for hay. Harrowing black soil.	30	13	97

Kartak (November)	Sowing wheat. Cutting second Jowari, Reaping Bajri, Bavto and first Jowari. Carrying straw to the *akhada.*	24	20	87
Magshar (December)	Cutting, collecting and threshing Guwar, Mag, Math, and Choli.	10	nil	2
Posh & Magh (January & February)	Cutting Sheria and Tuver; thrshing Tuver, removing Jawasa weed from Wheat, picking Cotton, fetching fodder from the *akhada* to the homestead.	25	4	54
Falgun (March)	Cutting and threshing Wheat. Bringing Wheat and fodder home.	20	22	39
Chaitra (April)	Free.			
		$219\frac{1}{2}$	129	480

For Men

Under-employment	3 months
Unemployment	2 ,,

For Bullocks

Under-employment	4 months
Unemployment	3 ,,

Table 2—Navagam

The family is assumed to include two field workers, and to own a pair of good bullocks, and the unit of cultivation is taken to be 10 acres of Kyari land.

Month	Nature of work	Men in days	Bullocks in days	Number of labourers
Vaishakh and *Jeth* (May & June)	Manuring and clearing fields of Jawasa weed.	25	10	nil
Ashad, Shrawan, early *Bhadrapad* (July, August & early September)	Preparing seed-beds for paddy. Ploughing the remaining land and transplanting Paddy.	67	67	250
Later *Bhadrapad* (Later Sept.)	Weeding.	13	nil	60
Ashwin & early *Kartak* (Oct. early November.)	No regular employment other than looking after bullocks and bunds of the fields.			
Later *Kartak* & early *Magshar* (Later Nov. & early Dec.)	Cutting Paddy and carrying it to the threshing floor.	28	15	75
Later *Magshar* & *Posh* (Later) Dec. January.	Sowing Wheat. Taking out Paddy grains. Irrigating Wheat.	45	45	20
Magh & early *Falgun* (February & early March.)	Unemployment			

Later *Falgun* & early *Chaitra* (Later March & early April.)	Cutting wheat. Taking out grains. Winnowing and bringing it home.	21	21	35
Later *Chaitra* (Later April	Unemployment			
	..	199	158	440

For Men

Under-employment 2 months
Unemployment 3½ „

For Bullocks

Under-employment 3 months
Unemployment 4 „

Table 3—Khandhli

The family is assumed to include two field workers, and to own a pair of good bullocks and the unit of cultivation is taken to be 15 acres made up of:—

Goradu	$11\frac{1}{2}$ acres
Kyari	$3\frac{1}{2}$,,
	15

Month	Nature of Work	Men in days	Bullocks in days	Number of labourers
Vaishakh and *Jeth* (May & June)	Manuring fields. Carrying straw from *Ahhada* to the home-stead. Clearing Kyari fields of Jawasa weeds. Rooting out Cotton sticks. Repairing hedges; clearing margins and fields of shrubs etc. Preparing seed-beds for Paddy and Bavto. Ploughing land. Manuring seed-beds with rotten leaves and preparing ropes for "Kos".	53	36	28
Ashad (July)	Sowing Kodra, Tali, Cotton and Bajri and hoeing these. Ploughing land for Bavto and Jowari and ploughing Kyari land. Weeding Kodra. Tali, Cotton and Bajri.	$28\frac{1}{2}$	28	67
Shrawan (August)	Transplanting Bavto and Paddy. Hoeing Bajri, Tali, Cotton and Kodra. Ploughing land for Jowari. Weeding Bajri, Kodra, Cotton and Tali.	30	$19\frac{1}{2}$	148
Bhadrapad (September)	Sowing Jowari. Hoeing Cotton. Weeding Cotton and Tuver. Cutting Tali and taking out grains. Cutting Bajri and tieing bundles. Ploughing land after cutting Tali.	27	11	56

Ashwin (October)	Cutting Paddy, Kodra, Tal, and taking out grains. Carrying the straw to the home-stead. Ploughing fields of Cotton and Tuver.	28	11	52
Kartak (November)	Cutting and Collecting Bavto and Jowari. Reaping Bajri and Bavto and taking out grains. Irrigating Cotton.	30	18	92
Magshar (December)	Irrigating Cotton. Cutting and threshing pulses.	19	10	19
Posh (January)	Reaping Jowari. Taking out grains. Irrigating and picking Cotton.	23	11	34
Magh (February)	Irrigating and picking Cotton.	20	10	30
Falgun (March)	Irrigating and picking Cotton.	20	10	nil
Chaitra (April)	Cutting and threshing Tuver. Cutting Rabi Crop (Wheat) and taking out grains.	17	10	42
		295	174	568

For Men

Under-employment 2 months

For Bullocks

Under-employment 6 months

SCHEDULE II

EXTENT OF AGRICULTURAL HOLDINGS, AGRICULTURAL WORKERS AND BULLOCKS EMPLOYED

Grade acres	Table 1 Limbasi Group				Table 2 Navagam Group				Table 3 Matar Group			
	Families	Total area in acres	Workers	Bullocks	Families	Total area in acres	Workers	Bullocks	Families	Total area in acres	Workers	Bullocks
1 to 3	29	43.9	49	3	41	77.2	73	22	31	58.1	61	5
3 to 6	42	191.1	89	28	63	312	133	80	38	169.5	78	22
6 to 10	75	598.8	182	80	117	958.4	290	198	61	486.9	122	73
10 to 15	66	807.6	192	88	104	1,297.7	254	202	56	688.7	160	90
15 to 20	67	1,143.7	183	111	61	1,067.2	143	136	24	405.5	77	52
20 to 30	85	2,112.3	231	177	48	1,146.4	136	139	19	454.3	45	39
30 to 50	59	2,179.8	189	142	21	756.5	63	68	6	228.7	15	16
50 upwards	13	870.2	31	54	3	182.8	8	11	1	58.3	6	4
Total	436	7,947.4	1,146	683	458	5,798.2	1,100	856	236	2,550	564	301

crops, due to the advent of the motor lorry and due to the lack of irrigation facilities, the cost of upkeep of the bullocks has relatively gone up. Our Schedule II discloses the fact that the families with less than 15 acres do not possess a pair of bullocks each and the extremely small holders have not even one bullock to share with another.

Navagam

As we have already mentioned, Navagam is a paddy growing village and is fairly representative of the villages that we have included in this group. An ideal family of two working members can cultivate about 10 acres with a pair of bullocks. In such a family the workers are underemployed to the extent of over five months and the bullocks to the extent of about seven months. About 50 per cent. of the families are not even in this position, their holdings being much smaller, and they have considerably fewer animals at their disposal. In this calculation also we have followed the same method as in Limbasi. Unlike the other two villages there is more unemployment than underemployment as there is practically no work during the months of Ashwin, Magh and early parts of Kartak and Falgun and a large part of Vaishakh and Jeth, while in the other two villages, Limbasi and Khandhli, the days of

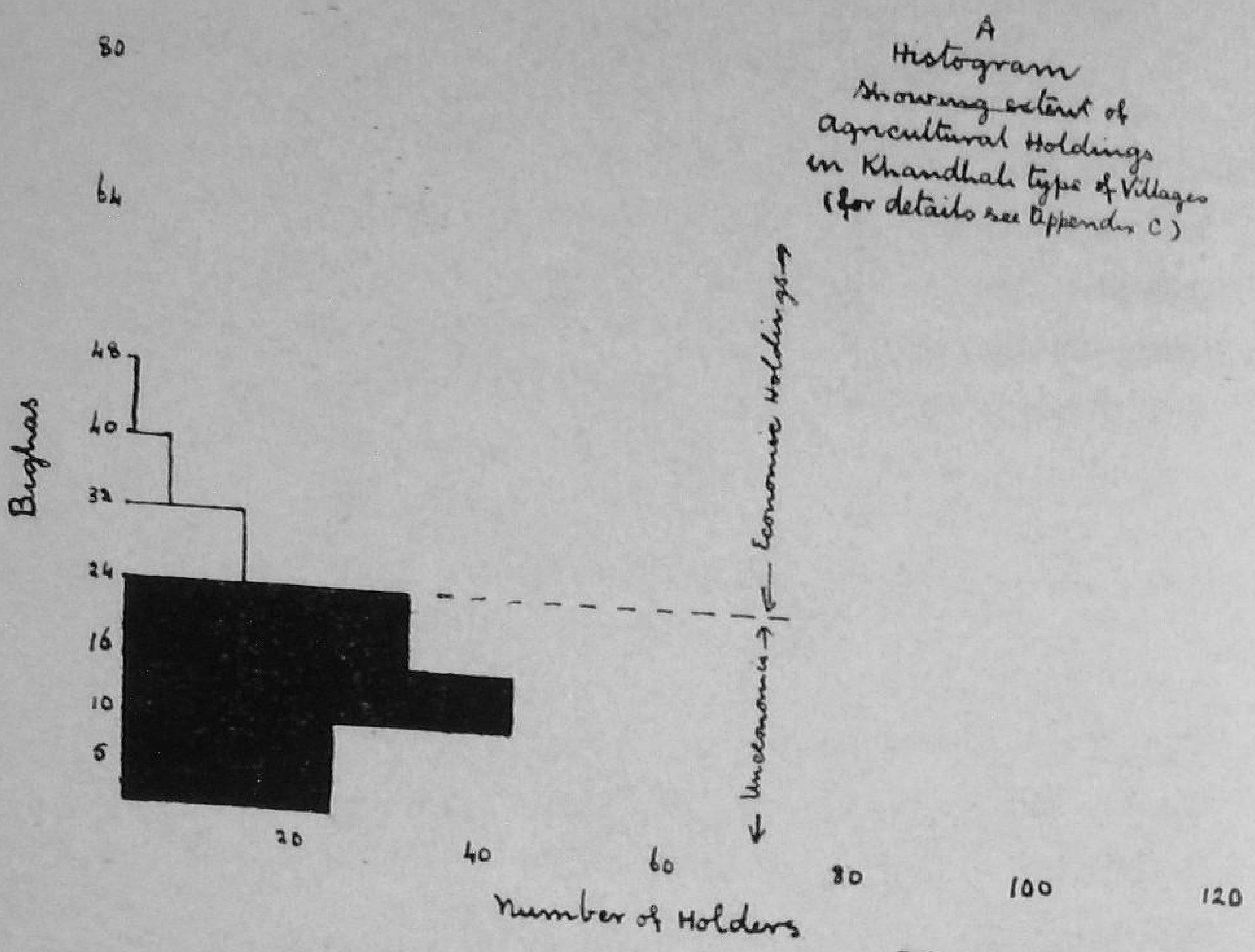
underemployment are scattered. This is mainly due to the fact that both in the Limbasi and Matar groups cultivation goes on all through the year. In Navagam, paddy is a Kharif crop; wheat and other Rabi crops being grown to a small extent.

Matar Group: Khandhli

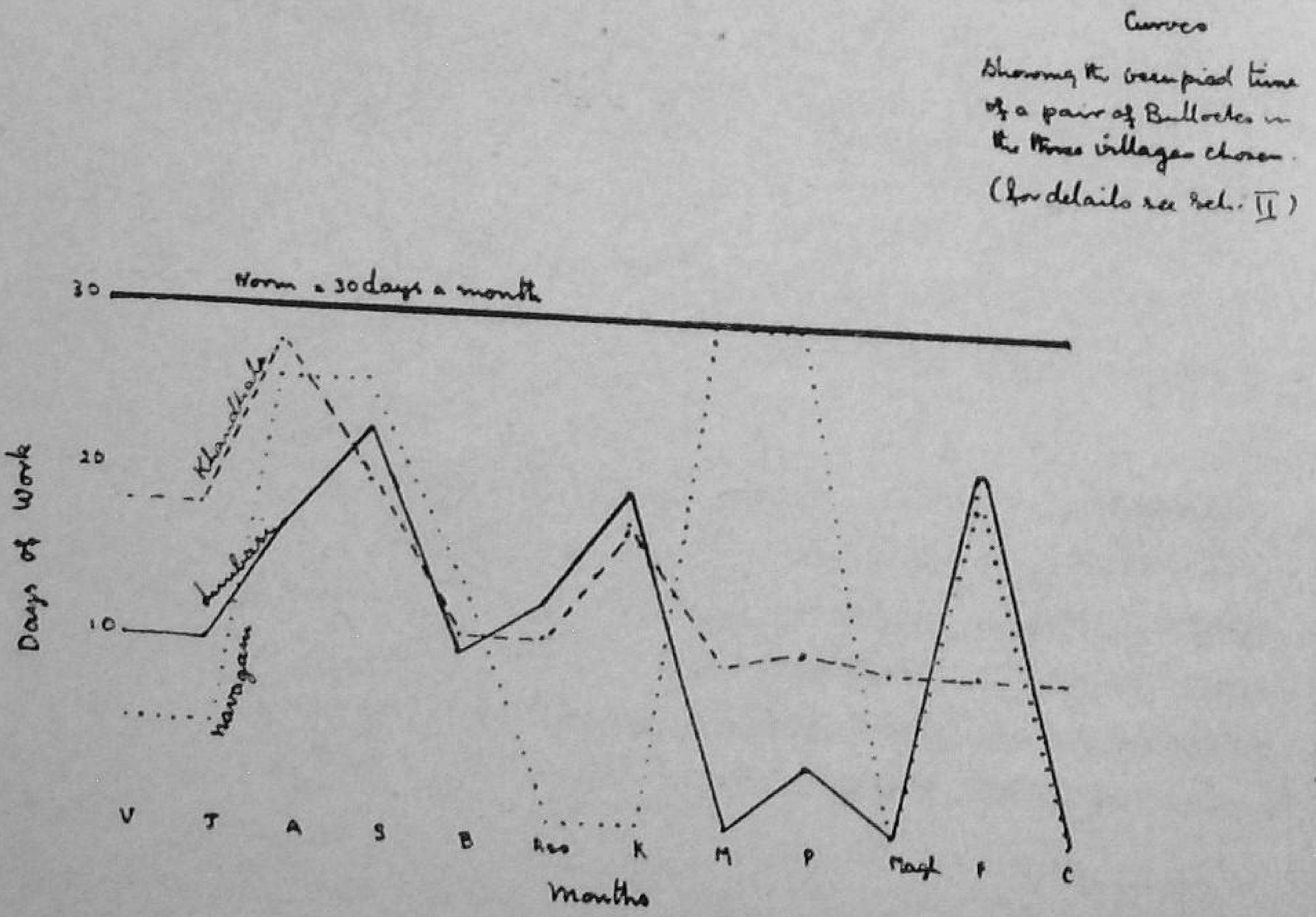
Geographically the villages which we have included under Matar group, fall midway between Limbasi group and Navagam group some of these villages partake of the nature of Limbasi villages. In such villages the question of underemployment or unemployment is as described above regarding the conditions in the villages of Limbasi. In the south eastern part of Matar group, however, there is a cluster of villages which stand out by themselves. This formed part of what is known as "Charotar" tract, and represent the "habitat" of the aristocratic Patidar farmers, and therefore, we have chosen Khandhli as a representative of this particular type.

In this village, there is comparatively very little underemployment as regards men. We may say that on the whole their underemployment will amount to about two months. But as regards the situation as to their bullocks it is not much better than in other

III


A
Histogram
showing extent of
Agricultural Holdings
in Khandhala type of Villages
(for details see Appendix C)
Bighas
80
64
48
40
32
24
16
10
5
20
40
60
80
100
120
Number of Holders
Economic Holdings
Uneconomic

VI


Curves
showing the occupied time
of a pair of Bullocks in
the three villages chosen.
(for details see Sch. II)
Norm = 30 days a month
30
20
10
Days of Work
Khandhala
V
J
A
S
B
K
M
P
F
C
Months

parts of the taluka, as even here the underemployment of the bullocks will amount to over six months. There is a certain amount of well irrigation in this village which takes up part of the slackness. The unit of cultivation in Khandhli for a family of two workers with a pair of bullocks is about 15 acres. But unfortunately, only about 15 per cent. of the families enjoy this ideal condition; the other 85 per cent. of the Charotar families have holdings of less than 15 acres and therefore, their conditions will not be as satisfactory as those of the ideal family we have described above.

We have to mention that the actual state of underemployment is much worse than the conditions we have described as many of these families employ hired labour to perform the field operations, which work we have taken for granted as being attended to by the working members of the family. For some operations, it is, of course, necessary to employ labour, as during certain seasons, and for particular processes, a large number of persons are needed to complete the work within a certain time. If such work is delayed for lack of workers, the crops would suffer or even fail. The labour required for such work is often imported from neighbouring villages and sometimes even from distant places like Kathiawar.

This large extent of underemployment in the taluka emphasises the need for subsidiary occupations which the farmers could engage in at odd moments when they are free from work in the fields, and which will not demand their continuous attention for any length of time. In the absence of such employment the farmers spend their time with their " *hookas* " (hubble-bubbles.) This is detrimental to them, both physically and financially, and ultimately demoralises them for continuous hard work. Apart from the need for subsidiary industries, we would also recommend that the families that employ hired labour, but which have no occupation for the members of their own family, should cease to be " gentlemen farmers", and should work on the land themselves. Labour should only be employed for work that cannot be done by the members of the family. Idle hours encourage consumption while the production is decreased and villages, where the per capita income is generally under Rs. 20 per annum, cannot afford to increase consumption. All ways and means should be explored to do away with unocccupied time.

Throughout the taluka, the bullocks are underemployed during more than 50 per cent. of the time. We have already mentioned one of the causes as being the introduction of motor buses and the consequent loss of income obtained

by cart-hire. We have pointed out elsewhere that some of the villages have lost two to five thousand rupees per year. One would be inclined to think that this underemployment of bullocks may be caused by an over-supply. This is not so. Without bullocks, a farmer would not be able to carry out the required processes in preparing the land for cultivation in proper time. In agriculture, time is of the first importance and if the operations are not performed at the opportune moment, the yield will be affected. Besides, it is not possible to hire bullocks just at that time, as all agriculturists would be requiring their bullocks badly at one and the same time. Some small-holders do not keep a pair of bullocks, but maintain only one, which when needed they share with another family in similar circumstances and so make up a pair. This custom in Gujarat is called " *Sundhal.*"

Fragmentation

According to our hypothetical families of Limbasi, Navagam and Khandhli, we assumed that their holdings were 12.5, 5 and 7.5 acres per worker respectively. But it will be seen from Schedule II, that the average area per worker in Limbasi group is 6.9, in Navagam 5.3 and in Matar group 4.6. Only in Navagam group is our supposition true to facts. In the

other two groups, the average holding is about half of what is required for the economic exploitation of the land. In addition to this shortage of land per worker, we found that a large number of holdings consist of great many scattered pieces. To illustrate this we are annexing a map of Limbasi village showing the fragmentation of seven holdings. Although it would appear to us to be profitable to consolidate these holdings, yet the farmers are stoutly opposed to any such idea, as they say that by having a large number of fragments scattered in different parts of the village one is able to get the advantage of different soil conditions and that it also facilitates their working on the fields, as when it rains in one part of the village it may be that other fragments in other parts of the village could be ploughed and got ready.

In the villages of Navagam group receiving irrigation water the agriculturists feel that by having their holdings in fragments scattered in various parts of the village, they are able to equalise everybody's chances of getting water, as otherwise, if the holdings were all in single large pieces, the holders nearest the canals would have all the advantage to the exclusion of others. By the distribution of their interests a more just rationing of the available water could be affected.

SCHEDULE III

CROPS, AREA AND PRODUCTON

Table 1

	Cotton			*Jowari*		
	Area	Production	Average	Area	Production	Average
Village	bighas	maunds	maunds	bighas	Bundles	bundles
Limbasi	439½	165¼	.4	209¼	40470	197
Vasai	89	8	.1	70¾	7450 4¾ mds.	106
Sayla	294½	39	.1	91	15390 24¾ mds.	169
Asamli	155	52	.3	51	7720	153
Palla	227½	61½	.3	52½	7325	141
Punaj	313¼	29½	.09	80½	7867 13½ mds.	94
Kunjra	144½	8½	.06	32¼	*	
Adeva	255¾	69½	.3	78¼	13425 45 mds.	171
Valotri	225	52½	.2	75	12 mds.*	
Moraj	182¾	23	.1	55½	12750	232
Chikhalia	175½	28¼	.2	62¼	14 mds.*	
Pariaj	20¼			19½	7 mds.*	
Zichka	421¼	28	.07	114½	16125 1 mds.	141
Khanpur	506¾	112¼	.2	137	31200 14 mds.	228
Marala	186	18¾	.1	74½	13945 20 mds.	185
Tranja	430½	255¼	.6	174¼	41010 11 mds.	236
Bhalada	65½	5½	.8	91	15950 43 mds.	175
	4133½	956	.22	1,469¾	230,627 210 mds.	157

Notes: (1) In cases of crops which are intercultivated with other grains or second crops other than wheat, we have not worked out the average production per bigha.

*Bundles are not separately mentioned here but taken into account with fodder.

Limbasi Group

Village	*Cotton* Area bighas	*Cotton* Production maunds	*Cotton* Average maunds	*Jowari* Area bighas	*Jowari* Production Bundles	*Jowari* Average bundles	*Bajri* Area bighas	*Bajri* Production maunds	*Bajri* Average maunds	*Bavto* Area bighas	*Bavto* Production maunds	*Bavto* Average maunds	*Paddy* Area bighas	*Paddy* Production maunds	*Paddy* Average maunds	*Kodra* Area bighas	*Kodra* Production maunds	*Kodra* Average maund
Limbasi	439½	165¼	.4	209¼	40470	197	80½	261¼	3.3	57¾	561¼	9.8	83¼	1017	12.2	48¾	195	4
Vasai	89	8	.1	70¾	7450 4¾ mds.	106	108½	229¼	2	52½	391½	7.4	42¼	200½	4.7	67	399	6
Sayla	294½	39	.1	91	15390 24¾ mds.	169	121¾	364¼	3	37¾	316	8.4	21¾	40	1.8	75½	687	9.1
Asamli	155	52	.3	51	7720	153	10	19	1.9	5	48	9.6	37¾	465	12.3	12½	167	13.3
Palla	227½	61½	.3	52½	7325	141	45½	101½	2.2	1	10	10				34	396	11.6
Punaj	313¼	29½	.09	80½	7867 13½ mds.	94	66¼	116½	1.8	36½	239	6.5	46½	647	13.9	25	154	6.2
Kunjra	144½	8½	.06	32¼	*		34	47	1.4	21¼	135½	6	6	54	9	14½	111½	7.7
Adeva	255¾	69½	.3	78¼	13425 45 mds.	171	68	151	2.2	19¼	101	5.2	74¾	160	2.1	11	59¼	5.4
Valotri	225	52½	.2	75	12 mds.*		59	142½	2.4	5	70	14	26	54	2.1	8½	60	7
Moraj	182¾	23	.1	55½	12750	232	65¼	225½	3.5	1½	22½	15	48¾	597½	12.3	53	454½	8.6
Chikhalia	175½	28¼	.2	62¼	14 mds.*		42	122	2.8				35½	231	6 6	31	306	9 9
Pariaj	20¼			19½	7 mds.*		37¾	98	2.7	4¾	23	4.9	11½	58	5	11	42	3.8
Zichka	421¼	28	.07	114½	16125 1 mds.	141	160	287½	1.8				67¼	63	.9	21	56	2.7
Khanpur	506¾	112¼	.2	137	31200 14 mds.	228	167½	592¾	3.5	6	29	4.8	42¼	119	2.8	33½	245	3.4
Marala	186	18¾	.1	74½	13945 20 mds.	185	86½	316¾	3.7	44¼	517½	11.7	17½	5	.3	32¼	316	9.8
Tranja	430½	255¼	.6	174¼	41010 11 mds.	236	172½	582	3.4	60¾	549	9	30	495½	16.5	115	1147½	10
Bhalada	65½	5½	.8	91	15950 43 mds.	175	135½	407¼	3	47¾	322	6.8	48¾	293	6	89¾	542½	6
	4133½	956	.22	1,469¾	230,627 210 mds.	157	1,460½	4,064	2.78	401	3,335¼	8.3	639¾	4,499½	7	683¼	5,338¼	7.8

Notes : (1) In cases of crops which are intercultivated with other grains or second crops other than wheat, we have not worked out the average production per bigha.

(2) The bye products such as straw and other fodder material ave not been taken into account in this table.

*Bundles are not separately mentioned here but taken into account with fodder.

Limbasi Group

Wheat			*Tobacco*			*Sesamum*		*Guwar*	
Area bighas	Production maunds	Average maunds	Area bighas	Production	Average maunds	Area bighas	Production maunds	Area bighas	Production maunds
686¾	2894	4.2	½	(70 Rs.)	11	11	13½		131¾
96¼	37¼	.4	2½	1000 bds. md. ¼	400 bds.	1	¾	2	90¾
86½	112½	1.3	1	1 md.			12½	2	120½
179	858	4.8				3	19		105
39	130	3.3	14	250 mds.	18			26	26
222	737¾	3.3				17	9		52½
126½	565½	4.5		(11 Rs.)				4	89
338½	1136	3.4				1	1½		70
348¼	1258	3.6					2½		25½
41½	143	3.4	7¼	430 bds.	59				77¼
226½	940	4.1		2 mds.					25¼
2	6	3	15½	45 bds.	3		8		14½
638½	1999	3.7							77
262½	510¾	1.9		50 bds.					279½
78¾	280¼	3.6		30 bds. 4 mds.		15	10½		145
79	355½	4.5	4¼	1040 bds. ¾ mds.	245 bds.	40	75		449½
19	10	.5							122¼
3,470½	11,973½	3.4	44	2,595 bds. 258 mds.	57 bds. 6 md.	88	152¼	8	1,901¼

Limbasi Group

Wheat			*Tobacco*			*Sesamum*		*Guwar*		*Gram & Pulses*		*Oil Seeds*		*Miscellaneous*			
Area bighas	Production maunds	Average maunds	Area bighas	Production	Average maunds	Area bighas	Production maunds	Area bighas	Production maunds	Area bighas	Production maunds	Area bighas	Production maunds	Area bighas	Production maunds	Total bighas	Fallow bighas
686¾	2894	4.2	½	(70 Rs.)	11	11	13½		131¾	22½	230¼	3½		16½	(Rs. 29 as. 15)	1659¾	113
96¼	37¼	.4	2½	1000 bds. md. ¼	400 bds.	1	¾	2	90¾	27¾	173½	16½		Chilly ½		576½	31
86½	112½	1.3	1	1 md.			12½	2	120½	13¼	231¾	23¾	3			767¾	40½
179	858	4.8				3	19		105	34	4	4		4½		495¾	96½
39	130	3.3	14	250 mds.	18			26	26	43	16		3	Kabro 42		498½	18½
222	737¾	3.3				17	9		52½	38½	166½	12½				858	313¼
126½	565½	4.5		(11 Rs.)				4	89	23½	100	8	5½			414½	135
338½	1136	3.4				1	1½		70	9	21	2	1½			857½	135½
348¼	1258	3.6					2½		25½		29					746¾	38¾
41½	143	3.4	7¼	430 bds.	59				77¼	6	94½		8½	Kabro 16	(Rs. 4 as. 6)	477½	19¾
226½	940	4.1		2 mds.					25¼	1½	56			Kabro 3	2 mds.	577¼	114¼
2	6	3	15½	45 bds.	3		8		14½	3	33½	1¼	5	8¾		142¼	26¾
638½	1999	3.7							77	2	21¾	18½		2½	(Rs. 43–0)	1445½	13
262½	510¾	1.9		50 bds.					279½	4	132½		8	24¾		1184¼	46
78¾	280¼	3.6		30 bds. 4 mds.		15	10½		145	16½	192½	22¾	13			574	96
79	355½	4.5	4¼	1040 bds. ¾ mds.	245 bds.	40	75		449½	43	575½	27¾	27½			1177	31½
19	10	.5							122¼	22	206¾	12½	3¾	17 (11 kabro)	11 mds.	549¾	75
3,470½	11,973½	3.4	44	2,595 bds. 258 mds.	57 bds. 6 md.	88	152¼	8	1,901¼	309½	2,285	160	74¾	135½		13,002½	1,347¾

	Cotton			Jowari		
	Area	Production	Average	Area	Production	Average
Village	bighas	maunds	maunds	bighas	bundles	bundles
Navagam				24	4575	181
Pinglaj				9¾	500	51
Kathwada	16½	7½	.5	20	750	37
Chanindra	38½	1	.02	22½	1000	44
Dharoda	108½	86¾	.8	56½	10495	185
Pansoli				9¾	10mds. 1050	108
Gobhlaj	9½			24	3900	163
Bherai				5¼	1100	209
Dhathal	2½			4½	400	89
Chitrasar	55¼	73½	1.4	60	5400	90
Vadala	24	7½	.3	20	3840	192
Nayka	210¼	366¾	1.7	118	18135	162
Kanera				31½	4400	140
Radhu	267¾	749¼	2.8	159¼	30038	188
Rasikpura	45½	80¾	1.8	37	5590	151
Kaloli	89½	228½	2.6	55¾	16750	299
Chandana	98½	331½	3.4	41¼	7860	192
Mahelaj	63¾	163¾	2.6	51	7465	146
Shetra	.9	34	3.1	9	1500	167
Vavdi	68½	101½	1.5	29	4050	140
	1,107½	2,232¼	2	788	128,798	163

Notes : (1) In cases of crops which are intercultivated with other grains or second crops other than wheat, we have not worked out the average production per bigha.

Navagam Group

	Cotton			Jowari			Bajri			Bavto			Paddy			Kodra		
Village	Area bighas	Production maunds	Average maunds	Area bighas	Production bundles	Average bundles	Area bighas	Production maunds	Average maunds	Area bighas	Production maunds	Average maunds	Area bighas	Production maunds	Average maunds	Area bighas	Production maunds	Average maunds
Navagam				24	4575	181	12	10	.83		10		922¾	16634	18.		6	
Pinglaj				9¾	500	51	4¾	1½	.3				136	2819	20.6			
Kathwada	16½	7½	.5	20	750	37	24½	7	.2	18½	21½	1.1	110½	176	1.6	10½	2½	.2
Chanindra	38½	1	.02	22½	1000	44	26	25½	1	2	3½	1.8	288¾	1638	5.7	1½	3	2
Dharoda	108½	86¾	.8	56½	10495 10mds.	185	114	298¾	2.6	34	158	4.7	69¾	678	9.7	21½	79	3.7
Pansoli				9¾	1050	108				4¼	41	9.1	229¼	1320	5.8			
Gobhlaj	9½			24	3900	163				38¼	298¾	7.9	243¼	3599	14.8	5¾	4	.7
Bherai				5¼	1100	209				17¼	136	7.9	373¾	1797	4.8			
Dhathal	2½			4½	400	89	5¾	3	.5	2	1¾	.8	190	143	.8			
Chitrasar	55¼	73½	1.4	60	5400	90	61½	145¾	2.4	22¾	49½	2.1	39¾	213	3.5	10	87	8.7
Vadala	24	7½	.3	20	3840	192	16½	9¾	.6	14½	87	6	73½	22	.3	2½	25	10
Nayka	210¼	366¾	1.7	118	18135	162	20¾	16	.8	14¼	30	2.1	789	7433	9.4	17	135	7.9
Kanera				31½	4400	140	18¾	55½	3	20¼	215	10.6	183¾	1116	6	2½	30	12
Radhu	267¾	749¼	2.8	159¼	30038	188	163¼	752	4.6	54	459	8.5	6½	39	6	133½	923½	6.8
Rasikpura	45½	80¾	1.8	37	5590	151	84¾	212¼	2 6	23	73½	3.2	2			64	174¼	2.7
Kaloli	89½	228½	2.6	55¾	16750	299	51	173¼	3.4	35½	358	10				39½	655	16.6
Chandana	98½	331½	3.4	41¼	7860	192	75½	225	3	54½	576	12.7	2¾			53½	492	9.2
Mahelaj	63¾	163¾	2.6	51	7465	146	86¾	305	3.5	24¾	205½	8.3				40½	280	6.9
Shetra	.9	34	3.1	9	1500	167	2	12	6	14½	118	8.1	2½			7½	10	1.3
Vavdi	68½	101½	1.5	29	4050	140	49	201	4.1	24	247	10.3	8	6	.8	34½	330½	9.6
	1,107½	2,232¼	2	788	128,798	163	816¾	2,453¼	3	409¼	3,089	7.5	3,672½	37,632	10.2	444¼	3,236¾	3.7

Notes: (1) In cases of crops which are intercultivated with other grains or second crops other than wheat, we have not worked out the average production per bigha.

(2) The bye products such as straw and other fodder material have not been taken into account in this table.

Navagam Group

Wheat			*Tobacco*			*Sesamum*		*Guwar*	
Area bighas	Production maunds	Average maunds	Area bighas	Production maunds	Average maunds	Area bighas	Production maunds	Area bighas	Production maunds
	216		1¼	10	8	1¾			
	28¾								
								2½	
10	6	.6							
29	135	4.7	½			16½	28	74	64
1	32	32							
10	131	13.1					1½		
12	94	7.8							
5½	57	10.4						1½	4¼
27½	15	.5		64		15	20	22	25½
13¼	273	20.8							
80¼	1094	13.6						15¾	75
	14					1¼			
118½	658½	5.6	15½	121	8	7½	144	4½	98¾
15	78	5.2	47	293	6.2		16		18
45	262	5.8	48	367½	7.7	1½	15	3	33
17	57	3.4	10½	93	9	2	44		88½
122¼	613	5	4¾	80	17	23½	34		
7	44	6.3							
			2½	17	7	2			8½
513¾	3,808¼	7.4	130	1,045½	8	71	302½	123¼	415½

Navagam Group

Wheat Area bighas	*Wheat* Production maunds	*Wheat* Average maunds	*Tobacco* Area bighas	*Tobacco* Production maunds	*Tobacco* Average maunds	*Sesamum* Area bighas	*Sesamum* Production maunds	*Guwar* Area bighas	*Guwar* Production maunds	*Pulses* Area bighas	*Pulses* Production maunds	*Miscellaneous* Area bighas	*Miscellaneous* Production maunds	Total bighas	Fallow bighas
	216		1¼	10	8	1¾								961¾	57
	28¾													151¼	14¾
								2½			2			203	84¾
10	6	.6												389¼	28¼
29	135	4.7	½			16½	28	74	64		½	1½ Chilly		525¾	109¼
1	32	32												244¼	35½
10	131	13.1					1½							330¾	337
12	94	7.8												408¼	112½
5½	57	10.4						1½	4¼					211¾	138½
27½	15	.5		64		15	20	22	25½					313¾	35¾
13¼	273	20.8										8	157 Java	172¼	87
80¼	1094	13.6						15¾	75	30¾ Gram	328	4½		1300½	360¼
	14					1¼					31			258	42
118½	658½	5.6	15½	121	8	7½	144	4½	98¾	1	35	2½ Chano	12¾	933¾	88½
15	78	5.2	47	293	6.2		16		18	1	20½	8	17 Chano	327¼	10
45	262	5.8	48	367½	7.7	1½	15	3	33	36	130½	3½ Chilly	5	408¼	40¾
17	57	3.4	10½	93	9	2	44		88½		51	12 Oil seeds	15	358½	43½
122¼	613	5	4¾	80	17	23½	34					2½ Chilly	18	419¾	65
7	44	6.3								2	15		20 Java	53½	51¼
			2½	17	7	2			8½		10½		1½ Oil seeds	217½	17½
513¼	3,808¼	7.4	130	1,045½	8	71	302½	123¼	415½	70¾	624	42½	256¼	8,189½	1,759

	Cotton			*Jowari*		
	Area	Production	Average	Area	Production	Average
Village	Bighas	maunds	maunds	bighas	bundles	bundles
Matar	29¼	69	2.4	40	7500 4½ mds.	188
Traj	105	457	4 4	85	17600 21½ mds.	207
Piparia	46½	158½	3.4	26½	5100	192
Koshial	31½	103	3.3	15½	2585	167
Machhial	34	57	1.7	39	6100 6 mds.	156
Khadialapura	30	63	2.1	60¼	10500 18 mds.	174
Vasana	151	364	2.4	80½	14740 16 mds.	183
Sokhada	72	331	4.6	48	11200 20 mds.	233
Undhela	26¾	100½	3.8	35	7100 7 mds.	203
Vansar	14½	36	2.5	16¼	2660	164
Sandhana	25	15	.6	50¾	8400 10¼ mds.	166
Radhwanaj	21½	83½	3.9	37½	4550 6 mds.	121
Antroli	10¾	23½	2.2	12	1425	119
Khandhali	25½	73	2.9	25½	5600 5½ mds.	220
Laval	5	8	1.6	22½	3460 5¼ mds.	154
Maliataj	11	42	3.8	28	5920	211
Alindra	14¼	73½	5.2	37¾	12630 36¾ mds.	336
	653½	2,057½	3.1	660	127,070 156¾ mds.	193

Notes: (1) In the case of crops which are interculti-vated with other grains or second crops other than wheat, we have not worked out the average production per bigha.

Matar Croup

Village	Cotton Area	Cotton Production	Cotton Average	Jowari Area	Jowari Production	Jowari Average	Bajri Area	Bajri Production	Bajri Average	Bavto Area	Bavto Production	Bavto Average	Paddy Area	Paddy Production	Paddy Average	Kodra Area	Kodra Production	Kodra Average
	Bighas	maunds	maunds	bighas	bundles	bundles	bighas	maunds	maunds	bighas	maunds	maunds	bighas	maunds	maunds	bighas	maunds	maunds
Matar	29¼	69	2.4	40	7500 4½ mds.	188	70¼	264	3.8	50½	312	6.2	25	71	2.8	32¾	143	4.4
Traj	105	457	4 4	85	17600 21½ mds.	207	35	94	2.7	27½	239	8.7	48	4	.08	28¾	203	7
Piparia	46½	158½	3.4	26½	5100	192	52½	212	4	21¾	135	6.2	7	16	2.3	41¾	152½	3.7
Koshial	31½	103	3.3	15½	2585	167	12½	71	5 7	13	175	13.5	2			13	71	5.5
Machhial	34	57	1.7	39	6100 6 mds.	156	54	144	2.7	31¾	189	6	49	31	.5	55¼	269	4.9
Khadialapura	30	63	2.1	60¼	10500 18 mds.	174	64½	172½	2 7	38½	451	11.7	34¾	132¼	3.8	49½	300	6
Vasana	151	364	2.4	80½	14740 16 mds.	183	74	406½	5.5	74½	599	8	19½	13	.7	62½	630¼	10 1
Sokhada	72	331	4.6	48	11200 20 mds.	233	33	131	4	48	519	10.8	35½	265	7.5	47	276	5.9
Undhela	26¾	100½	3.8	35	7100 7 mds.	203	20¾	134	6.5	22½	163	7.2	23	164	7.1	15¾	124½	7.9
Vansar	14½	36	2.5	16¼	2660	164	35¾	111½	3.2	20½	216	10.5	20¾	90½	4.4	22¼	82½	3.7
Sandhana	25	15	.6	50¾	8400 10¼ mds.	166	54½	185½	3.4	77¼	535	6.9	68	236½	3.5	47	179	3.8
Radhwanaj	21½	83½	3.9	37½	4550 6 mds.	121	44½	147	3.3	45½	527	11.6	56½	255	4.5	53	255	4.8
Antroli	10¾	23½	2.2	12	1425	119	13¾	67½	4.9	26	281	10.8	9¼	46	5	11¾	98	8.3
Khandhali	25½	73	2.9	25½	5600 5½ mds.	220	25½	104½	4.1	20½	246½	12	28¼	116½	4.1	27¼	135	5
Laval	5	8	1.6	22½	3460 5¼ mds.	154	48	116¼	2.4	28	220	7.9	42	246	5.9	34	60	1.8
Maliataj	11	42	3.8	28	5920	211	18½	69	3.7	18	211	11.7	52½	260½	5	16½	27	1.6
Alindra	14¼	73½	5.2	37¾	12630 36¾ mds.	336	46¾	232	5	23¾	213	9	38¾	226	5.8	47¼	338	7.1
	653½	2,057½	3.1	660	127,070 156¾ mds.	193	703¾	2,662¼	3.8	587½	5,231½	8.9	559¾	2,173¼	3.9	605¼	3,343¾	5.5

Notes : (1) In the case of crops which are intercultivated with other grains or second crops other than wheat, we have not worked out the average production per bigha.

(2) The bye products such as straw and other fodder material have not been taken into account in this table.

Matar Group

Wheat			*Tobacco*		*Sesamum*		*Guwar*		*Gram Pulses*	
Area bighas	Production maunds	Average maunds	Area bighas	Production Bds. Mds.	Area bighas	Production maunds	Area bighas	Production maunds	Area bighas	Production maunds
2½	15	6	5¼	47 mds.	1	9		24		42¾
75	379	5	3¼	580 bds.	23½	42¾	10¾	53½	13	102¾
5½	50	9		300 bds.	11	36		32	1	17½
3	14	4.7	1½	250 bds. 16 mds.	1	20		8½	5½	10½
4¼	68	16			13	5¾		8½		15½
2	26	13	1	(60 Rs.)	8	13¼		20	3	49
14	112	7.7	116½	340 bds. 672 mds.	7	94½		38¾	5	82
22¼	318	14.3	11½	116 mds.		11½		13½	7½	87
			49¼	327 mds.		2		20½		35¼
1½	50	33.3	5		4½	3½		5¼		37¼
8¾	170	19.4	11¼	120 mds.				14		58¾
	56		25	1200 bds. 160 mds.	2	22½		33		118½
4¼	76	17.9		(8 Rs.)				1		3
6	49	8.2	6½	66½ mds.	10	65		18½		28½
9	130	14.4	1	5 mds.	3	26½		6¼		7½
3¾	46	12.3	7	36 mds.		15		10½		14
			73½	611½ mds.	¾	20½	2	75½	3½	134
161¾	1,559	9.6	317½	2,670 bds. 2,177 mds.	84¾	387¾	12¾	383¼	38½	803¾

Matar Group

Wheat			*Tobacco*		*Sesamum*		*Guwar*		*Gram Pulses*		*Oil Seeds*		*Variali*		*Miscellaneous*			
Area bighas	Production maunds	Average maunds	Area bighas	Production Bds. Mds.	Area bighas	Production maunds	Area bighas	Production maunds	Area bighas	Production maunds	Area bighas	Production maunds	Area bighas	Production maunds	Area bighas	Production maunds	Total bighas	Fallow bighas
2½	15	6	5¼	47 mds.	1	9		24		42¾					4½	4½	261	60¼
75	379	5	3¼	580 bds.	23½	42¾	10¾	53½	13	102¾	13¼	15	4	8	21	59	493	17½
5½	50	9		300 bds.	11	36		32	1	17½					Kasumbi 9		222½	3½
3	14	4.7	1½	250 bds. 16 mds.	1	20		8½	5½	10½					3	14	101½	11
4¼	68	16			13	5¾		8½		15½	1	1					281¼	22
2	26	13	1	(60 Rs.)	8	13¼		20	3	49		10			6½		298	22½
14	112	7.7	116½	340 bds. 672 mds.	7	94½		38¾	5	82	7½	33	19	19	7½	81	638½	40¼
22¼	318	14.3	11½	116 mds.		11½		13½	7½	87		5	3		1	(150 Rs.)	328¾	6¾
			49¼	327 mds.		2		20½		35¼					1	13	194	1¼
1½	50	33.3	5		4½	3½		5¼		37¼	1¼	4	1		10½	2½	153¾	16½
8¾	170	19.4	11¼	120 mds.				14		58¾			4	(Rs.48-8)	½	(153 Rs.)	347	40¼
	56		25	1200 bds. 160 mds.	2	22½		33		118½		4			1	13	286½	5½
4¼	76	17.9		(8 Rs.)				1		3							87¾	2¼
6	49	8.2	6½	66½ mds.	10	65		18½		28½					1	28	176	18½
9	130	14.4	1	5 mds.	3	26½		6¼		7½			2	3			194½	5
3¾	46	12.3	7	36 mds.		15		10½		14	1	14	25	37	3½	202	184¾	12½
			73½	611½ mds.	¾	20½	2	75½	3½	134			7¾	23			296	8¾
161¾	1,559	9.6	317½	2,670 bds. 2,177 mds.	84¾	387¾	12¾	383¼	38½	803¾	24	73	65¾	90	70	417	4,544¾	294¼

Although there may be something in what the Navagam people contend, yet it does not appear to us that there is any need for such large fragmentation. We can well understand a holding divided into three or four parts according to the kinds of soil, but to have it divided into many more pieces would presumably make them uneconomic. There is one method other than consolidation by which the farmers do, to some extent, mitigate the evils of fragmentation, and that is, by taking adjoining lands on rent or on cropshare and giving away the remoter fields to other persons to whose lands they may be adjoining. The objection to this method is that the land so taken or given is prone to deteriorate in its fertility for lack of proper care and attention, because the farmer is likely to give some pieces of his land on cropshare and at the same time take some pieces which adjoin his other land. In both cases, his interest is limited to that particular year and his short-sighted policy is likely to result in low production.

Although there may be something in what the Navagam people contend, yet it does not appear to us that there is any need for such large fragmentation. We can well understand a holding divided into three or four parts according to the kinds of soil, but to have it divided into many more pieces would presumably make them uneconomic. There is one method other than consolidation by which the farmers do, to some extent, mitigate the evils of fragmentation, and that is, by taking adjoining lands on rent or on cropshare and giving away the remoter fields to other persons to whose lands they may be adjoining. The objection to this method is that the land so taken or given is prone to deteriorate in its fertility for lack of proper care and attention, because the farmer is likely to give some pieces of his land on cropshare and at the same time take some pieces which adjoin his other land. In both cases, his interest is limited to that particular year and his short-sighted policy is likely to result in low production.

CHAPTER II

MANURE

The most commonly used manure is farmyard manure. It is mainly preserved by the farmers from their own cattle. In a few of the villages, they have this manure heaped with care in dung pits. The smaller farmers do not appreciate the importance of storing manure well; although they also heap it in dung pits outside the villages. The manure from the cattle of the shepherds is more often turned into dung cakes and not used in any appreciable quantity for manural purposes. Even where so used, such manure is not of high quality, as urine and farmyard waste is not collected properly, and the manure is often allowed to dry up. Even where farmers do not preserve their manure as well as they should, they do utilise all available stuff and only a small percentage of the manure is converted into dung cakes or used for other household purposes such as plastering the floor etc.

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WELL KEPT DUNG HEAPS OF ALINDRA

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The manure pits are generally adjacent to the village sites, although the plots provided by the government in some cases are further away: people have not been made to appreciate the importance of hygiene with the result that they dump the manure as near to their dwellings as they can. This adds to the insanitary condition of most of the villages. Still more objectionable is the habit of a few farmers of storing their manure in the yards adjoining their own houses in the village site.

There is a general scarcity of manure felt all over the taluka. In the Limbasi group of villages all agriculturists use manure, with the exception of the village of Palla where the people are so poor and the carts available are so few, that they are unable to transport the manure to the fields; only occasionally they resort to manuring their fields.

In the Navagam group, all villages with the exception of Dharoda, use manure. Dharoda is subject to fertililisation by silt deposit from the Sabarmati. A much larger percentage of the available manure is converted into dung cakes in this group and a proportion is also sold to outsiders. The larger percentage of dung cakes made here is accounted for by the fact that in this group there is a comparative lack of fuel.

In the Matar group of villages manure is not so generally used and about half the

number of agriculturists sell their manure to the other half; Patidars, as a rule, use manure, while Dharalas dispose of theirs to the Patidars.

Reasons for Using Small Quantity of Manure

Although the peasants are quite alive to the fact that the use of manure increases the fertility of the soil and thereby their output, yet, they are unable to manure their fields to the extent to which they would like for several reasons. As we have already stated, in some villages the peasants are so poor that they are unable to transport their manure to their fields; but in many instances, the main reason seems to be uncertainty of rainfall. Heavier manuring needs a greater quantity of water if the crops are not to be 'burnt off.' Because of this the farmer stands to lose whether he manures the fields well or ill. If the fields are well manured and the rains fail, the farmer loses the crop and a part of the manure. In such a case the product is poorer than the product of an unmanured field with the same quantity of rain. This phenomenon is due to too much soil heat generated by manure, and therefore, the farmers term it "burning up of the crops." Again if he does not manure, the crop is poor. Naturally, the cultivator, who has little capital which he can afford to stake, prefers the second venture.

Where farmers are able to afford they get nomadic shepherds (Kathiawari *rabaris*) to fold their animals, mainly sheep and goats, on their lands. The chief objection to this kind of manuring is that it makes the weeding problem more difficult as the sheep and goats consume wild berries and babul beans and deposit the seeds in the fields. It is generally believed that this method of manuring a field is not as profitable as that of using farmyard manure as the former does not dissolve as rapidly as the latter.

Farmers do not appear to be aware of the utility of green manure and only a very few of the most enterprising farmers have tried, but without much success, chemical manures, such as sulphate of ammonia, and other manures like bone manure and oil cakes. There seems to be an impression that chemical manures need a good deal of water to dilute them, and if not so treated, the crops get overheated. We do not feel any .useful purpose would be served by using any kind of chemical manure without a knowledge of the specific requirements of the soil. Such information can only be available after a scientific soil survey has been made.

Crops Manured

All crops that require a good deal of manure have to be irrigated in this taluka on account of

the low rainfall and irrigation facilities are only available in the Navagam group of villages. Amongst the crops, sugar cane seems to require most manure but this crop is little raised in this taluka. The tobacco crop, which is raised in fair quantities in Navagam and Matar groups, requires the next largest amount of manure. The principal crop of Navagam group is paddy, which is given about 5 to 8 cartloads of manure per bigha. Crops such as Cotton, Bajri, Bavto Kodra are manured to a lesser extent.

Price

A cartload of farmyard manure fetches about 8 as to Rs. $1^1/_4$, according to quality. For folding 100 sheep and goats for one night per bigha, the shepherd is given one to two maunds of corn.

Dung Cakes

Generally speaking agriculturists do not use their good cattle dung for dung cakes. The dung cakes are mostly made by non-agricultursts such as shepherds etc. The dry dung collected from the jungles is also used as fuel. It is generally believed by the farmers that the dung of the animals fed on green fodder has a much larger manural value than dung of animals fed on dry fodder; therefore, even where farmers prepare dung cakes, they do so during the hottest months when the cattle are fed on dry

fodder. Such of the agriculturists who do prepare dung cakes are of the poorer class and the manural value of their cattle dung is low, as these animals are illfed.

As this question of manure and dung cakes is largely misrepresented, we are giving below extracts from various rural surveys from all over India, to show that our findings in Matar Taluka are similar to those of other economists.

Ramnad District : Vadamalaipuram

"The villagers are keen about manure, and they utilize all that is available. Their chief manure however is cowdung and this they are careful not to waste. About 95 percent of the cowdung goes as manure, the remaining 5 percent being utilized for beating the iron tyres of bandies when they have to be repaired. They do not use cowdung for domestic fuel as is done in the villages in the southern part of the district. Though they are so very keen about cattle dung, they do not care for cattle urine. In fact except the small percentage of urine that gets necessarily mixed up with cattle dung in the stall, cattle urine does not form part of the manure. Sheep and goats are made to stay at night in the fields and that is all the other animal manure that is used.'[1]

1 *Some South India Villages*, Madras University, p. 36.

Tinnevelly District: Gangaikondan

"Nearly all the cattle dung available is used as manure except a very small percentage, perhaps about 10 percent, which is used for cleaning the houses and for fuel."[1]

Tanjore District: Palakkurichi

"Very nearly 40 percent of the manure used is cattle dung. Much of the cattle urine is wasted, but recently people have come to understand the value of cattle urine and they have devised means to direct it to dung pit or dung hill."[2]

North Arcot District: Dusi village

"About 10 percent of the cattle dung is used for fuel, the rest for manure, and this constitutes 80 percent of the manure used."

Chittor District: Thettupalli

"Most of the dung, about 90 percent, is used as manure, the rest being utilized for household purposes. The cattle urine is allowed to run to :waste. The dung of goats, sheep, pigs, donkeys, is used as manure."[3]

Mysore District: Gownipalle

"Nearly 90 percent of the cow dung is used as manure, the rest being used for household

1. *Some South Indian Vill ges*, Madras University, p 61.
2. *Ibid* p. 78.
3. *Ibid.* p 99.

purposes. Cattle urine is allowed to run to waste."[1]

Kistna District: Vunagatla

"Only about 50 percent of the cattle dung is used as manure, the rest is used for fuel."[2]

Kochin State: Watakanchery

"Cattle dung mixed with cattle urine is used as manure in the paddy fields. The percentage of cattle dung will approximately be 25 percent of the total manure used- Dung is also used as manure."[3]

Malabar District: Guruvayur

"The dung produced among the agricultural classes is used for manure, not for paddy or cocoanut, but for the cultivation of vegetable."[4]

Pimpla Soudagar

"The alternative to a fallow is usually either manuring or alternation with a leguminous crop. Of these, the former is, in a large measure, inadmissible as we shall show below, as the uncertainty of the suitability and timely character of rainfall makes expensive manuring on dry land a risky matter. It is far

1 *Some South Indian Vill : es,* Madras University, p. 106.

2 *Ibid* p. 113.

3 *Ib d,* p. 131.

4 *Ibid* p. 151.

more risky indeed than any one who has had only to do with agriculture in Europe can conceive, and when it involves an out-of-pocket expenditure, as for the purchase of artificial manure, is a perfect gamble."[1]

"The cattle dung is removed and collected daily but the urine is always wasted. During a greater part of the year, that is for about 8 months, most of the dung is turned into dung cakes for burning on the banks of the river. These are the chief fuel of the village, but about 40 tons are sent to and sold in Poona, where they bring about 15 Rs. per ton. In the rains this method of utilization is impossible and the dung is then collected in numerous manure pits, just outside the village site, and afterwards utilised for crops."[2]

Atgam

"The whole supply of cattle dung is not used as manure. It is a usual practice among almost all farmers whether Kaliparaj or Ujaliparaj to use some portion of it as fuel. A good number of the Kaliparaj earn a few rupees by selling dung cakes at Bulsar."[3]

1. Dr. H. Mann's *Life and Labour in a Deccan Village* p. 76.
2. *Ibid* p. 120.
3. G. C. Mukhtayar's *Life & Labour in a South Gujarat Village* p. 78.

Gagar Bhana

"Round the villages are large heaps of farmyard manure, each cultivator having his heap carefully separated from those belonging to others."[1]

"The families of non-zamindars who own animals, as most of them do, convert the whole of it into cakes of fuel and the agriculturists, who own a larger number of animals than the non-agriculturists, use a very large proportion of cow dung as fuel. On the whole it is estimated that no less than one third of the cow dung in the village is consumed as fuel. This estimate is little more than a guess."[2]

Bakhshi-ka-Talab

"The only material used at present is cow dung mixed with house sweeping, ashes and useless straw."[3]

"A great deal of cow dung is also used in the village as fuel (inspite of the fact, that there is no scarcity of wood). In house cleaning also it is largely used. The cow dung cakes in the pastures and woods are almost wasted and seldom brought to the village."[4]

1 *Punjab Village Survey* No. 1, p. 2.
2 *Ibid.* p. 179
3 *Fields & Farmers in Oudh*, Part I, p. 52.
4 *Ibid* p. 53.

Rudhui

"So far as their circumstances permit they try to store manure for the soil."[1]

The Royal Agricultural Commission, 1928, on page 10 of the abridged Report says:

"The most readily available supply of plant food is, of course, farmyard manure. But unfortunately, a very large amount of this is lost to agriculture through the custom of using cow-dung cakes for domestic fuel."

This statement is not justified at least by facts disclosed by our survey of Matar Taluka and by the extracts quoted above. On the other hand, it appears to be contrary to these findings. The difficulty of the farmer in manuring the crops is to a large measure a problem of water-supply. We have already referred to this on a previous page. Even if an adequate supply of water were available, our survey shows that there will be still a want of manure which can only be met by manures other than farmyard manure, such as oil cakes, bones, night soil, and chemical manures. Owing to the export of oil seeds to foreign countries, oil cakes are not available to our farmers. Here nature's cyclic order is broken, and Indian soil is impoverished. As Doctor Voelker, in his Report on Indian Agriculture, says "to export the entire seed is to export the soil's fertility." Similarly also,

1 *Fields and Farmers in Oudh*, Part II p. 149

bones are exported to provide raw materials for foreign factories. Unfortunately a prejudice against handling the night soil has kept our farmers from utilising this material. A number of the extracts which we have quoted above, clearly show that at least in those cases the statement made by the Commission that a very large amount of farmyard manure is lost to agriculture through the custom of using cow-dung cakes for domestic fuel, is not true. We notice, that in Vadamalipuram, 95 % of the farmyard manure is utilised as manure and fully 90 % at an Gaikondan, Palakkurichi, Thettupalli and Gownipalle, is being so utilised, and in Vunagatla about 50 % is made use of. As we have previously stated, practically all agriculturists in Matar Taluka preserve the dung of their animals. The dung cakes, if made at all, as we have already pointed out, are made during the period when the cattle are on dry fodder and when the dung of such animals has not very high manurial properties. It is usually the non-agriculturists and the shepherds who prepare dung cakes, and these dung cakes are, in most cases, sufficient for the consumption of the village, without interference with the supply of manure usable under present conditions by the agriculturists. But in villages near large towns, as in the case of Atgam, near Bulsar, and Pimpla Soudagar, near Poona, the available supply of farmyard manure

is interfered with by the ready market such towns provide for cow dung cakes. But in rural India, these towns are few and far between and it would appear that the conclusions of the Royal Commission have been unduly weighted by evidence given by towns people.

As a rule, our farmers are not aware of the loss they incur by neglecting to collect the urine of the animals and excepting for the little urine which is mixed with farmyard waste, most of the available urine is lost.

Even, as regards the value of cow dung cakes as fuel, as against charcoal or coal, Mr. Milne in reply to Mr. Devadhar, at the meeting of the Advisory Board of the Imperial Council of Agricultural Research held at Pusa, December 1929, said that the damage caused by the use of cow dung as fuel was overestimated. He stated that as a result of the investigation carried out in the Punjab, it was proved that an equal amount of heat was given out by 4 annas worth of cow dung, as against 8 annas worth of coal, and 1 Rupee 4 annas worth of charcoal, so that the housewife was really using the cheapest form of fuel. Use of dung cakes as fuel was, in his opinion, not uneconomic.

Night Soil

It would be possible to utilise the night soil as manure, if a convenient method could be

devised to handle the material. The Royal Commission Report, on page 85, suggests the adoption of "the activated sludge process." This, to our mind, like the rest of government suggestions, is unsuited from our financial standpoint. It involves a certain amount of expenditure on equipment. It would be more desirable to devise an arrangement which will minimise the transport of night soil. It may be possible for villagers to go out into their own fields to answer calls of nature, digging pits and covering up with earth after each call, so that flies and insects do not get at the manure and the properties of the manure may not be lost by exposure. It is possible, for about Rs. 5, to construct a portable cabinet with 4 sides of matting to be placed in the fields to provide privacy.

For those to whom this is not feasible, each village should provide village latrines, and the manure buried, and annually such manure could be sold to the agriculturists and the proceeds from such sales could be used to maintain the Bhangis and carts. This may be somewhat difficult to organise in the beginning, but once the people are educated up to it, we see no difficulty with this method becoming general. A certain amount of sustained educative propaganda will have to be carried on before the people would agree to even this.

CHAPTER III

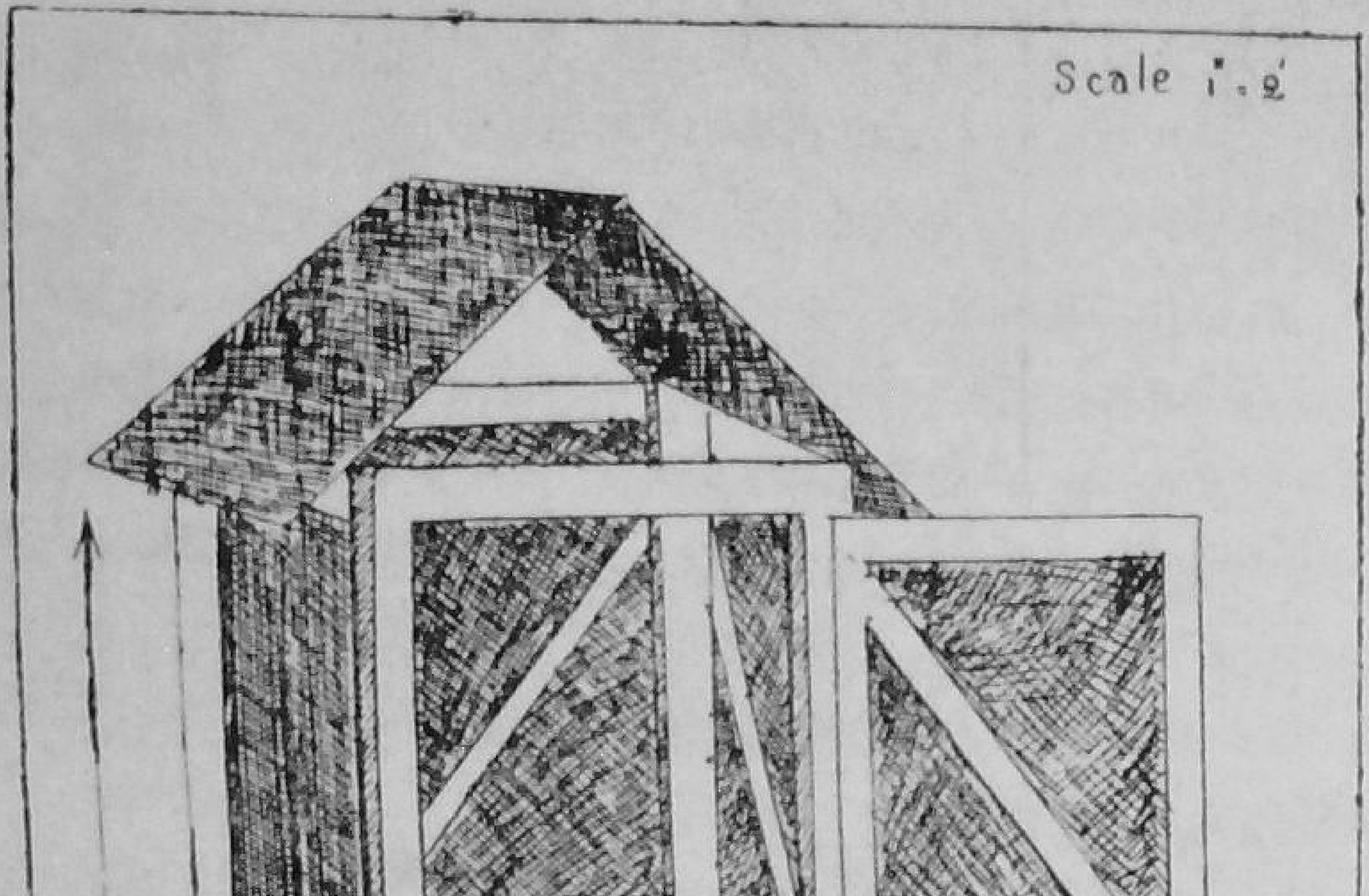
IRRIGATION

"*He should multiply the number of tanks and wells containing large quantities of water, and should protect all shady trees.*"

Mahabharata-Shanti. 86-15

Tanks : *Limbasi Group*

In this group, with the exception of Pariaj, very little cultivation is done by irrigation, and a great many of the tanks hold water only for a few months in the year. Pariaj seems to be a favoured village as regards water supply; it being the only village possessing the advantage of flow irrigation from a large tank. There are six other tanks which do not offer this advantage, but water has to be lifted therefrom. Many of the tanks in the other villages are in bad repair and little attention has been paid to directing water into these tanks from their catchment areas. Most of the villages have their own *gam* tanks. The



PORTABLE LATRINE

Irrigation Department owns tanks in about eight villages. With the exception of Khanpur and Chikhalia, which are extremely poor, this section of the taluka is studded with Himayat tanks. These tanks belong to the Revenue Department, and fields in the proximity of these tanks are assessed to Himayat rates.

Irrigation tanks bring in revenue to the government whether they hold water or not. In any case, Irrigation rates are charged on the adjoining fields and the dry parts of the tank are let out on rent for cultivation. Even here the Irrigation Department takes care of its dues more zealously than Shylock himself. At Tranja, the Irrigation Department gives out about 200 bighas of the bed of the tank for cultivation, and makes sure of obtaining the rent in money, before the monsoon sets in. If the season is good, the people cannot cultivate, as these lands will be under water. They get *Khariff* crops during bad years, and *Rabi* during good years, making only one crop annually. If, by any chance, two crops are possible, double the rent is taken. The rent is payable in advance, irrespective of the nature of the crops. The Department is not prepared to work on a cropshare system. In any case, where lands belonging to the Irrigation Department are not capable of being used as reservoirs for water, such lands should be

returned to the cultivators and the Irrigation Department should cease to be a landlord.

From what we gathered from the people of Adeva and Valotri, it would seem possible to increase their production considerably by directing the overflow from Chanora Tank into Dike Tank, which is only five fields away. They say, that if the bunds are raised, it will supply enough water for their purposes, and they would be able to cultivate paddy in Government *khar* land—which is lying waste at the present time. We have, of course, not been able to ascertain the possibilities of this scheme from a technical point of view, but it does seem within the range of practical engineering. If the Irrigation Department has at heart the good of the farmers, it should leave no stone unturned in exploring ways and means of increasing the productivity of these villages, more especially as the possibity of raising rice, which is a valuable food crop, seems to be within reach.

Similarly also the people of Chikhalia, Zichka and Moraj tell us, that if the bunds of the tanks are raised, the capacity of the tanks could be increased. Such a scheme will irrigate at Chikhalia alone over 200 bighas more of Kyari land; also another 150 bighas of uncultivated land could be cultivated. Similarly, larger tracts could be brought under rice cultivation in both Zichka and Moraj.

In many villages, such as Punaj and Kunjra, the subsoil water-level has been considerably lowered since 1900. This would appear to be a consequence of deepening, enlarging and repairing the drainage canals through the taluka. These channels are intended to prevent inundation during years of heavy rains, but they are not stopped during bad monsoons, consequently they carry away water from the taluka even when there is a scarcity of rainfall, thus causing wells and tanks, which contained plenty of water prior to 1900, to dry up. It seems to us, that if suitable locks could be constructed at different stages of the drainage canals, such arrangement, while preventing scouring, will also conserve the water of the taluka and raise the subsoil water level.

We have also repeatedly heard complaints from the people that since 1900 the rains have failed, and in this way, they account for the low level of the subsoil water. This contention is not borne out by the rainfall statistics, the five year averages inches being:

1902—7	25.84″
1908—12	25.86″
1913—17	30.67″
1918—22	22.27″
1923—28	28.17″

These figures show that there has been no serious lack in rainfall, and if the subsoil water level is lower than in 1900 it is definitely attributable to the carelessness of the Irrigation Department in allowing the rain water to run waste.

People of Punaj complained that their tank does not get water because the sluices in the canals are too low. We have come across many such minor complaints which could be redressed by a little attention from the officials and which would result in considerable advantage to the poeple.

The Government Departments seem far more anxious to increase the area assessed to Himayat than to afford water facilities to the people. The area of tanks, which have not sufficient water in them, is enlarged by acquiring fields around them as in the case of Pariaj Tank near Sayla where the newly added part of the bed of the tank is so high that even during the last floods, (1927) water did not accumulate there, while the surrounding fields were flooded. We fail to understand why this area was acquired by the Department and the cultivators dispossessed of their lands. These fields are assessed to himayat, because they adjoin the so called 'tank'. The people have to pay, not for the water they get, but for the privilege of being adjacent to cultivated

fields which belong to the Irrigation Department and which are termed 'tanks.' L. V. M. Robertson Esq., I. C. S., while writing about Khari cut canal defines "irrigated area" as "area assessed to Himayat"[1] and adds that that does not mean that the whole area actually got water. According to this, fields may be brought under irrigation by the simple process of assessing them to Himayat.

At the revision settlement another monstrocity was introduced in the form of an imposition (subsoil water annas) "sub-soil annas are an addition to the soil classification in the consideration of its supposed capacity to yield water if wells are sunk". Inspite of the Settlement Officer's Report which says "to impose sub-soil annas on such lands is to tax them for a capacity which *prima facia* they do not possess", some of the villages are still subject to this tax.[2]

At Khanpur, the village tank was deepened by the government, as a relief measure, during the famine of 1900. In so doing they appear to have struck porous subsoil, with the result that the tank does not hold water for long; yet, the same high water rate is charged as before. As the amount of the rate per holder works out to only a rupee or two,

1 *Second Rivision Settlement of the Matar Taluka* p. 7.
2 *Ibid* p. 18

people have not taken the trouble to appy for a reduction.

A similar complaint about the damage done by the famine relief work of 1900, we heard from the people of Marala and Tranja regarding the Nagrama Tank and the Tranja Tank, which also do not hold water long now, and are sources of great inconvenience. As we have previously suggested, the lands occupied by such tanks could be profitably made over to cultivators.

Dhana Tank at Bhalada had its bund broken during the last floods and is now useless for irrigation purposes, but still the fields adjoining this tank are assessed at a higher rate as being lands near the tank.

Navagam Group

Unlike the other two sections of Matar Taluka, this northern portion depends a great deal for its cultivation on irrigation. The major part of the irrigation is done with the help of canals. Tanks do not figure so largely as a source of supply of water. In addition to their *gam* tanks, there are several tanks owned by the irrigation Department and a still larger number of Himayat Tanks.

One of the largest tanks, belonging to the irrigation Department is the Gobhlaj Tank and its surplus water is utilised by Pansoli,

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A GROUP OF FARMERS OF CHANINDRA

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Dhathal and Vadala. In the case of Gobhlaj the charge is made only on those who take water. Naturally, the supply of water to the villages of Pansoli, Dhathal and Vadala is not dependable, but Pansoli people say they are assessed to a consolidated amount which includes water rate for Gobhlaj Tank also, whether they take water or not. At Dhathal, the surplus water of Gobhlaj, when released, does a great deal of damage to the standing crops. The irrigation department does not appear to consider the needs of these villages as paramount. It is said that in the previous year, their rice crop suffered for lack of water, as the Department would not supply sufficient water from the Gobhlaj Tank. But in the winter, as a portion of the tank bed was covered with Babul trees which were auctioned away and the area had to he drained, they let out the water and ruined the wheat crop covering about 100 acres. People of Vadala and Shetra complain also about the damage done both to their crops and their tanks by the surplus water from Gobhlaj.

Matar Group

As in case of Khanpur, in Machhial also the tank was enlarged and deepened during the famine relief works of 1900, with similar consequences. The tank which used to hold

water throughout the year, now dries up within two months. Notwithstanding the scarcity of water, the fields about this tank are subject to a permanent water tax.

In most of the other villages such as Undhela, Vansar, Sandhana, and Randhvanaj, there are tanks owned by the Irrigation Department into which the water from the catchment area is not directed, with the result that practically none of these tanks hold any water which could be used for irrigation purposes, and still some villages like Sandhana are being assessed to permanent cess. In Antroli, people say that they have not complained about paying permanent Irrigation rates, while they get no water, because they have no hope of their case being attended to. Similarly also, in Khandhali, there is a permanent water rate included in the assessment for kyari lands near the tanks from which they get no water. The irrigation tank at Lawal has been full thrice in the last decade, but all fields which can be watered when the tank is full are assessed permanently to Himayat. This means several of the fields pay ten year's water rate to get water in three years.

Conclusion

On the whole, the irrigation tanks in this taluka are not looked after as they might be, and facilities for irrigation have decreased. In

view of the instances of several tanks we have already quoted, which have been ruined by the famine relief works of 1900, the statement in the Second Revision Settlement Report, paragraph 29, makes curious reading. "Moreover in addition to these large schemes, many minor tanks in the taluka have been improved by the Irrigation Department since 1902. The taluka is undoubtedly better protected against partial failure of the monsoon than it was in 1902." The sentence appears to us to express more a hope than a fact.

As regards the assessing of the people to Himayat rates, there seems to be no co-relation between water supply and the tax. The opportunity of getting water under ideal conditions of a good monsoon seems the basis for taxation rather than the actual quantity of water supplied. So, relatively the people are being progressively highly assessed to water rate, while the irrigation facilities are getting less and less.

With a little care in directing water into existing tanks it would appear to us possible to bring under cultivation areas now lying waste, and to use land at present under poor crops for more valuable crops, such as rice.

Wells

Very little irrigation is done with the help of wells in this taluka. The farmers state that

the well-water is not suitable for purposes of irrigation. Fields that are irrigated by such water lose their fertility to a considerable extent. The wells they possess are only used in an emergency. A great many of the wells contain brackish water. If the level of subsoil water could be raised by conserving the water of this taluka even this brackishness would be diluted. Inspite of the fact that these wells are not used for irrigation purposes, the people are subject to Himayat assessment in some of the villages.

The capacity of the wells has been increased in some cases by successful boring, but in many instances boring has not been to the advantage of the people. Even some fresh water wells have turned brackish as the result of the boring operations.

Pumps

A few enterprising farmers have attempted to introduce irrigation, mainly for tobacco, by means of mechanical pumps. As far as we can ascertain, these attempts have not been wholly successful.

People of Alindra, who have had the experience of pump irrigation for over three years, state that it would be more profitable to work the well with six koses, by 12 cultivators in co-operation, than to use a pump, as their

bullocks in that case would be employed and they would be saved the extra pump charges. Besides, the pump drains a well to a low level rapidly and so the water obtained is inferior to the water of upper levels. They also feel that the pump water is not so well absorbed by the soil as the kos water, as the former runs too rapidly and does not soak so well. The draw of such pumps has a tendency to lower the water table of not only that well alone but also of neighbouring ones.

The possibilities of irrigating large tracts with oil pumps erected by co-operative effort seem to us rather doubtful, as this may lead to under-employment of the ryot's bullocks, which will have to be fed in any case, and which will have no work during the watering season. This may even increase the financial burden on the ryot taking water. If the increase in production resulting from such irrigation was large enough, a certain amount of wastage in bullock power may be neglected. But if the additional production is not commensurate with the added expense, the innovation of pump irrigation will only add to further impoverishment. As long as the organisation of our present rural economy remains what it is, mechanisation of particular parts only will not help matters. Bullocks are needed by the farmer to plough and to cart his produce. He could also utilise the same bullocks

for raising water. To mechanise only one of the functions of the bullocks will necessarily lead to wastage. When the time comes, if it ever does, when we can use tractors for ploughing and motor-lorries for transport, then it will be, in keeping to use pumps for irrigation.

Persian Wheels

At Vansar a persian wheel is used for lifting water from a well. Although the flow is steady and double the quantity that can be lifted by a kos is raised by this wheel, yet it is objected to on the ground that it imposes a steady strain on the yoke, and thus tires out the animals. If this device could be adapted to the strength of our bullocks it may prove satisfactory.

Dhekudies

At Asamli and Palla, farmers raise water from the river by means of *Dhekudies.* A dhekudi is like a kacha well or pit dug into the bed of the river by the bank, and water is raised much in the same way as with kos from the wells with the help of a pair of bullocks. The construction of a dhekudi costs about Rs. 10 for carpentry and Rs. 90 for labour charges for erecting the lift arrangement and digging the pit. These charges are likely to be an annual expenditure, as the floods of the river once a year usually destroys

dhekudies previously constructed. With three koses working on a dhekudi they are able to irrigate about 20 bighas of land. The fields situated on the banks of the river are assessed highly irrespective of whether they get water or not. Dharoda has about 20 such dhekudies (*kothalies*) working, Vasana has 2, Mahelaj has 5 and Matar 1.

Canals

The taluka is watered by the rivers Shedhi, Khari, Watrak and Sabarmati; the first two being tributaries of the Watrak which joins the Sabarmati at Palla. We have already referred to irrigation from the Watrak and the Sabarmati by dhekudies or lift-wells. Unlike the Shedhi, which is little used for irrigation, the river Khari is best known as a supplier of water to the villages which are grouped under the term of '*Kalambandhi.*' The main crop raised by these villages is Paddy. It is hardly necessary for us to narrate fully the history of these *Kalambandhi* villages, further than stating that this group of villages had their preferential right to the use of the water of the River Khari recognised under the rules framed in 1843. It is the exercise of this privilege that has made the northern part of this taluka a comparatively well-irrigated zone. As a result of irrigation these Kalambandhi villages were

CHAPTER IV

MARKETING

Limbasi Group

This group of villages have around them a few important commercial centres, but most of them are in the neighbouring states of Baroda and Cambay. The produce of these villages are bought by the merchants who come from Cambay, Petlad, Sojitra, Tarapore, Dholka Bareja, Borsad etc. On the whole, the farmers contract individually at the best prices they can get. The prices are fixed competitively often through brokers. Rarely do moneylenders take the produce themselves, but even when they do, they take it at the market rates. People are not bound to hand over their produce to their creditor. The middlemen usually get a brokerage of about Rs. 2 per cart. In some villages a share of the brokerage is paid into the village fund. The produce, when sold, is sent to the neighbouring towns, mostly, either in their own carts, for which they receive hire,

or in buses. There are good motor-roads running through from North to South and East to West.

Navagam Group

For the villages of this group, the commercial centres are Ahmedabad, Cambay, Dholka, Petlad and Anand. Traders from these centres go to the several villages at the time of harvest and buy up the produce at rates fixed by individual bargaining. Generally, the sowcars do not take the produce in payment of their dues. Only in a few villages, such as Pinglaj and Radhu, do the moneylenders take the produce at harvest times to settle accounts. In such cases, the prices paid are a few annas lower than current market prices.

We did hear in one village, Vavdi, that the sowcar was willing to pay an anna or two more than the market price owing to his anxiety to recover his dues. A certain amount of brokerage—about 5 seers per cart of rice—is given to the broker by the farmer. The produce is transported mostly in motor lorries. There is a serious complaint from many of the villages that this method of transport has ruined their earnings in the form of cart-hire. Some of the villages have suffered losses on this account which they compute to be Rs. 2,000 to Rs. 5,000 a year. The nearest fair to this group is Wautha where

an annual festival is held. These fairs were originally media for exchange of goods, but at present, they merely serve as opportunities for spending a few annas.

Matar Group

Matar town itself is a trading centre, and other important commercial centres are Nadiad and Kaira. Here as in the other two groups, merchants from round about come to these villages to buy the produce. Transactions are generally entered into through brokers. Though the sowcar rarely takes payment in kind, when he does buy, he pays one to two annas per maund more than the current rate, to be sure of getting the money back.

As a rule, the brokers are paid by the purchasers, and in a few cases a certain amount of the brokerage goes to the village fund. The grains are transported by local carts which bring in an income of about Rs. 300 per year to the villages. The nearest fair is at Wautha where a considerable amount of money is spent.

In the sale of products, it may be possible to obtain better prices if the bargaining power was strengthened by an organisation amongst the farmers, to collect the produce of each village, grade them and sell them in large quantities. By the adoption of motor lorry

transport the villagers have lost one source of income and have suffered partial under-employment for themselves and their bullocks. In addition to this, it has also meant a higher expenditure on the upkeep of roads and communications in the taluka. It is false economy to introduce modern methods of transport etc., while the bulk of our organisation is still in the primitive stage. This causes a great deal of mal-adjustment, resulting in poverty and distress.

Our farmers have been used to the exchange of goods by barter from time immemorial and have not as yet accustomed themselves to the use of cash, with the result, that much of their extravagance could be attributed to their miscalculation of values. While the farmers have been given cash and flashy cheap manufactures from the west to attract them, they have not had an education to bring their conceptions upto date. Until education spreads amongst the masses, it would be much better for all concerned, if transactions were to take place in kind, rather than in cash. If creditors would take their payments in the produce of the village and jointly dispose of it, there will be less chances of the villagers being mulcted for their ignorance. Co-operative selling agencies can render great help if properly organised to serve the interest of the farmers.

CHAPTER V

INDUSTRIES

Subsdiary Industry

Ginning, Spinning aud Weaving

Although this taluka has a large cotton growing area nothing is done to prepare the raw cotton for its final product. There is no ginning done and even the cottage industry of spinning has died out. Only at Mahelaj there were about 50 spinning wheels a few years ago, but these belonged to professional spinners. The greatest benefit of spinning is to be obtained only when it takes the form of a subsidiary industry. At present attempts are being made to introduce this. In this taluka there is an under-employment of about one half of the agriculturist's time. Nothing is done to utilise this enormous wastage of human power. The problem of proverty of this taluka cannot satisfactorily be solved as long as the peasants are not profitably employed during such a large proportion of their time. Even indigenous weaving, which is, of course, confined to one particular class of

people is rarely to be met with. In former years, when certain sections of the taluka were producing *'kosumbi'*, there was a certain amount of occupation provided by dyes. With the disappearance of the cultivation of this plant, this industry has also vanished.

Flour Mills

Navagam, which is a rice producing tract has a rice and flour mill which is said to be working at a loss. The introduction of the rice and flour mill again produces under-employment amongst the women of the village who used to earn a little by grinding. The only other place in the taluka that has such mills is Alindra.

Oil Mills

In many villages we found oil-mills (country *ghanis*) working. These oil-mills are worked by bullocks in little dungy rooms with hardly any space for anything else. The conditions are unhealthy both for the bullocks and the driver.

Dairies etc.

At Limbasi, Alindra and Khandhali there are creameries which attract milk from the surrounding villages. The general complaint is that as a consequence of the milk being sold to these dairies, the people get less nutrition; as, in the normal way, ghee is prepared and the bye-products, such as butter-milk etc., are used by

the villagers themselves. But, at present, the ready cash offered by the dairy-companies and the avoidance of the trouble of making ghee, are too great temptations for the villagers to resist. These dairies have also thus increased the amount of under-employment. It is stated that the conditions of the buffaloes also has been affected. When milk was produced for preparation of ghee the owners of the animals were interested in the quality of the milk and fed them on cotton seeds, which have a high oil percentage, and this food has the effect of lessening the quantity but enriching the quality. As they are not at present interested in the quality of the milk sold, the buffaloes are now fed on Guwar, which, though possessing little oil percentage, gives larger quantity of milk.

Sugar Crushing

Only at Radhu some sugar crushing is done. At one time, sugar cane produce was one of the principal crops in the neighbourhood of Radhu. But at present very little sugar cane is raised owing to difficulties of obtaining finance, and lack of water.

Gum Collecting

Some of the poor people occupy themselves by collecting gum from the Babul trees. This is a most precarious method of making a living as a man can hardly collect one anna's worth of gum

a day. Even this is a profitable occupation, if only because it utilizes idle hours.

Artisans and Menials

Carpenters and Blacksmiths

The two industries which are closely dependent on agriculture *viz.*—Carpentry and Blacksmithy—are carried on by the artisans under much the same terms as prevailed in olden days. That is, in return for a certain amount of grain the artisan agrees to keep in repair the plough and other agricultural implements. The carpenter usually gets about 2 maunds of grain per plough, while the blacksmith gets about a maund and a half per plough. Of course, all new implements are paid for in cash. These payments in kind are in the nature of a retainer for his services.

Barbers

In a similar fashion, the services of barbers, potters, chamars, and others are also paid for. The barber is paid about $^3/_4$ of a maund per beard per year and in addition to this a small piece of land is given by the village for his use. Further, on marriage occasions and ceremonies he is paid extra for any services he may render. Very often the barber's wife acts as mid-wife. In such cases, in addition to cash payments, gifts of clothings are given.

Potters

The potter gets about one maund and a half of grains per family for supplying earthenware. This does not of course include articles other than household utensils. When he supplies earthenware granaries, bricks or tiles, these are to be paid for separately. In this connection, we may point out, that this village industry of brick and tile making has suffered most at the hands of the Congress workers. Unfortunately, during the last flood relief a few years ago, as a matter of emergency, our voluntary workers introduced into common use corrugated zinc sheets for roofing and other purposes. Although zinc roofing makes the houses hot in summer and cold in winter, yet it has caught the fancy of the people and they feel that zinc roofing does not need as much attention as tile roofing, especially where monkeys and pea-fowls are active. But they fail to realise the damage done to one of their own village industries by patronizing foreign products.

Chamars

The Chamars are paid about a maund of grain per plough and they are expected to keep collars of bullocks, kos and shoes in repair. For new koses he is paid for separately. The Chamars usually skin dead animals and tan leather.

Dheds

Generally speaking, the Dheds have abondoned their traditional occúpation of weaving and have become labourers for hire and, at present, we are told that the village officers use them for all menial work while they are on circuit without any payment. In some cases, in return for such services, government appears to have given them some land. Whatever the relationship may be between the officers and the Dheds we have received several complaints about ill-treatment meted out to them by the petty officials.

Bhangis

The Bhangis are meant to keep the village in a sanitary condition and they are paid about a maund of grain per family and they are also allowed a plot of ground by the village. They augment this income by making ropes, baskets etc.

System of Payment

The principle underlying the system of payment in kind to the artisans and menials and the allocation of land to certain class of workers is a very sound one. It seeks to provide every man with the means of subsistence. Each artisan is given a share of the produce irrespective of the work done; at the same time, he is allowed a certain latitude to supplement

his income by his extra industry. The system does not provide outlets with which the artisan can exploit the needs of the village. It checks, at the very source, the evils of competitive economy, which prevails in the west. The main evil which has crept into our division of labour is largely due to regarding certain kinds of work as capable of polluting the worker. The village was looked upon as a self contained economic unit and the production was in effect co-operative production entitling all those who were helping in the production to a share in the product. In time, the system had petrified into a system of hereditary profession carrying special rights and privileges or disabilities. It is within the range of possibility to salvage this system which has worked so efficiently in the past.

Implements

All these artisans, even to this day, use their age-old methods of working. Their tools are primitive and they have never attempted to improve them. The capital available is, of course, very little and they are not able to go in for modern methods with the finances at their disposal. Until the whole village, as an economic unit, reaches a more satisfactory financial stage it would be in vain to hope for the betterment of individual classes and crafts.

VI

A DHARALA CAMP NEAR MACHHIAL

During the cultivation season some Dharalas camp on their fields which are far away from the Village.

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CHAPTER VI

FINANCES

"*That king who protects his kingdom himself and shows leniency to his subjects and supports himself upon what is easily got, succeeds in doing much.*

"*Does not the king then acquire wealth enough to meet his wants? The entire kingdom becomes then to him his treasury, and his treasury becomes his bed-room.*

"*If the denizens of the cities and the provinces be poor, the king should, whether they depend upon them directly or indirectly, show them mercy to the best of his power.*"

Mahabharta—Shanti 87—22, 23 & 24

Standard of Living

Minimum of Subsistence

Our inquiry shows that amongst these villages, on an average for a year, an adult

Social		2.9 ,,
Postage, Tobacco, Telephone, Fares etc.	3.7 ,,	3.1 ,,
Miscellaneous		3.8 ,,
	100.0 pc.	100.0 pc.

It will be noticed from the above, that about 85 % of our farmer's expenditure is to provide the elementary needs of food and clothing, while, in America only about 50 is used for these. The higher man gets in the scale of civilisation, less and less percentage of his income is spent on sustaining animal existence, and an increasing percentage on cultural requirements. Judging from this, our Matar people are barely out of the first stages of civilisation.

Here we should bear in mind that we are comparing the family of a common labourer of America with that of a respectable farmer of Matar Taluka. The legitimate comparison would have been to have calculated the family budget of a Dhed or a Chamar, who form our labouring class. But in comparison with the aristocracy of our farmers, the American labourer's standard of life appears but as a distant goal.

It will be noticed that the American budget does not include any provision for the education of children. This is because in America education of every individual is considered a birthright, and compulsory free

SCHEDULE IV

PRODUCTION ACCOUNT

Table 1

Limbasi Group

Villages	Total Income Rs. as.	Total Expenditure Rs. as.	Amount of net Income Rs. as.	Amount of net Loss Rs. as.
Limbasi	25,558	20,400—8	5,157—8	
Vasai	6,844-10	5,850—6	994—4	
Sayla	7,922-10	5,788—3	2,134—7	
Asamli	6,918	4,447—1	2,470-15	
Palla	5,518	6,022—3		504—3
Punaj	7,984-15	6,891—3	1,093-12	
Kunjra	4,374—7	2,318-11	2,055-12	
Adeva	8,303—5	8,524—4		220-15
Valotri	7,925-10	5,923-13	2,001-13	
Motaj	7,784-13	4,993—4	2,801—9	
Chikhalia	7,601-14	4,477—6	3,124—8	
Pariaj	2,274-12	1,125-13	1,148-15	
Zichka	10,209—5	12,133-10		1,924—5
Khanpur	8,863-12	9,456		592—4
Marala	6,363-14	5,927—1	436-13	
Tranja	15,763--15	10,821—4	4,942-11	
Bhalada	8,138-10	4,251—7	3,887—3	
	148,360—8	119,352—1	32,250—2	3,241-11

Subject to Land Revenue, Real net income is Rs. 29,008 -7

Limbasi Group

Villages	Total Income Rs. as.	Total Expenditure Rs. as.	Amount of net Income Rs. as.	Amount of net Loss Rs. as.
Limbasi	25,558	20,400—8	5,157—8	
Vasai	6,844-10	5,850—6	994—4	
Sayla	7,922-10	5,788—3	2,134—7	
Asamli	6,918	4,447—1	2,470-15	
Palla	5,518	6,022—3		504—3
Punaj	7,984-15	6,891—3	1,093-12	
Kunjra	4,374—7	2,318-11	2,055-12	
Adeva	8,303—5	8,524—4		220-15
Valotri	7,925-10	5,923-13	2,001-13	
Motaj	7,784-13	4,993—4	2,801—9	
Chikhalia	7,601-14	4,477—6	3,124—8	
Pariaj	2,274-12	1,125-13	1,148-15	
Zichka	10,209—5	12,133-10		1,924—5
Khanpur	8,863-12	9,456		592—4
Marala	6,363-14	5,927—1	436-13	
Tranja	15,763-15	10,821—4	4,942-11	
Bhalada	8,138-10	4,251—7	3,887—3	
	148,360—8	119,352—1	32,250—2	3,241-11

Subject to Land Revenue, Real net income is Rs. 29,008 -7

Result per capita — *Analysis Showing Extent of Income*

Income per capita Rs. as.	Loss per capita Rs. as	1 to 25	26 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	Above 500	Total families
20—1		2	5	5	8	3	7	2		1	33
4-14		4	3	7	2		4	1			21
14—7		6	5	6	4	2					23
13-14		3	2	5	6	2	1				19
	3-11	1	5	2	3		2				13
7—7		6	7	5	2	1	2				23
38—1		1	2	5		2	1	1	1		13
	2—1	1	2	4	2			2			11
20-14				2	2	2	2		2		10
19-12		1	3	5	7	2	4			1	23
27-14		3	2	3		3	4				15
19—8		1	3	1	2	2					9
12—6		1	2	5	1	1		1			11
	4—6	4	3	3	3						13
4—8		4	4	4	2	1					15
21-14		2	5	10	6	4	4	4			35
21—9		1	2	3	3	9	4			1	23
12—4		41	55	75	53	34	35	11	3	3	310

Note:—The analysis of the extent of Income or Loss is arrived at after deducting Land Revenue from the income shown in Production Account.

Analysis Showing Extent of Loss

1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	above 500	Total families	Families with no income	No. of families examined
5	4	1	3	2	2		1	18		51
5	3	2	2	1				13		34
7	2	1						10		33
2								2	1	22
6	1			1			2	10		23
6	5	1		1				13		36
										13
				3		2		12		23
3	1			1			1	6	1	17
1	3							4		27
1								1		16
									1	10
2	1	3	2	3	2	1	2	16		27
4	6	1	5	1				17	1	31
4	3		1				1	9		24
7	1			1	2			11		46
5	2			1				8	1	32
63	34	9	13	15	6	3	7	150	5	465

Navagam Group

Villages	Total Income Rs as	Total Expenditure Rs as	Amount of net Income Rs. as.	Amount of net Loss Rs. as.
Navagam	43,356—1	27,478-12	15,877—5	
Pinglaj	5,848—8	3,001—3	2,847—5	
Kathwada	2,189-14	1,372—7	817—7	
Chanindra	5,132—3	5,338-10		206—7
Dharoda	8,587-12	6 263—3	2,324—9	
Pansoli	5,023—4	5,355—7		332—3
Gobhlaj	10,882—8	11,248—4		365-12
Bherai	6,637—2	8,291-10		1654—8
Dhatbal	2,439-10	3,601—2		1,161—8
Chitrasar	3,607—4	3,851—5		244—1
Vadala	3,368-13	3,470—2		101—5
Nayka	26,574-12	17,971—3	8,603—9	
Kanera	5,654—1	3,982-12	1,671—5	
Radhu	14,780—3	12,547-15	2,232—4	
Rasikpura	4,056—8	3 401-10	654-14	
Kaloli	8 574—6	6,492-10	2,081-12	
Chandana	5,981—4	4,337—9	1,643-11	
Mahelaj	5,770—8	4,481-14	1,288-10	
Shetra	1,146-12	480—5	666—7	
Vavdi	2,208-12	2,016—5	192—7	
	1,71.820—1	1,34,984-4	40,9018—9	4,065-12

Subject to Land Revenue, Real net income is Rs. 36,835-13-0.

Result per capita		Analysis Showing Extent of Income									
Income per capita Rs. as.	Loss per capita Rs. as.	1 to 25	26 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	above 500	total families
70—0		1	1	5	3	9	6	3	2	7	37
34—1		3	1	1	3	1	1	1		2	13
9—6		1	1	4	3	1					10
	3-13	1	4	4	1					1	11
	13—8	3	5	2	4	3	3	1			21
	7-10	2	4								6
	4—4	4	1	5	1	2	2	3			18
	12—7	4	4								8
	17—1		1	3	1		1				6
	4—1	2	2	4	2	2					12
	1-13	1	1	4	1	2					9
	22-13	3	6	16	11	4	8	2	4	1	55
15-10		3	4	6	3	1	1				18
10-13		1	3	9	6	2	2	1			24
8—3		1	2	3	3	2					11
20—2			1		7	3	2	1		1	15
15—2		6		4	3	2	2				17
12-12		1	3	5	1		2				12
20-10		1	6								7
2—3		1	2	1	2						6
15-15		38	47	82	55	34	30	12	6	12	316

Analysis Showing Extent of Loss										
1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	above 500	Total families	Families with no income	No. of families examined
2	2	3		3	2		1	13		50
	1							1		14
4								4		14
2	1	1						4	1	16
8		2		1	1			12	1	34
3	2	1		3	1			10		16
4	2	2	1		2			11		29
6	4	6	1			1	2	20		28
2	1	4		2				9	1	16
2			1					3		15
2		1	2					5		14
7	5	5	3	1				21		76
5	1		1					7		25
6	8	1	2		3			20	1	45
2	1	1			1			5	1	17
1	2	2		2				7		22
•2	1	1						4	1	22
13	2	1		1				7		19
									1	8
4	2							6		12
65	35	31	11	13	10	1	3	169	7	492

Note:—The analysis of the Extent of an Income or Loss is arrived at after deducting Land Revenue from the income shown in the production Account

Matar Group

Villages	Total Income Rs. as.	Total Expenditure Rs as.	Amount of net Income Rs. as.	Amount of Loss Rs. as.
Matar	5,115—5	4,005—0	1,110—5	
Traj	7,303-14	5,904-15	1,398-15	
Piplia	2,743—1	1,970-13	772—4	
Koshial	1,933—4	1,222—4	711—0	
Mgchhial	2,462—0	2,401-13	60—3	
Khadialpura	4,528—1	3,312-10	1,215—7	
Vasna	9,418—6	8,291—3	1,127—3	
Sokhda	7,484—6	5,815—6	1,669—0	
Undhela	4,830-10	4,007—4	823—6	
Vansar	2,730-10	2,324-12	405-14	
Sandhana	5,969-11	4,431-11	1,538—0	
Radhwanaj	5,132—8	3,549—2	1,583—6	
Antori	2,261—7	1,176-10	1,084-13	
Khandhli	4,033—1	3,093-12	939—5	
Lawal	2,929-13	2,802—0	127-13	
Maliataj	2,457-12	3,021—4		563—8
Alindra	8,055-12	6,560-12	1,495—0	
	79,389—9	63,891—3	16,061-14	563—8

Subject to Land Revenue, Real net income is Rs. 15,498-6-0

Result

Per capita

Analysis

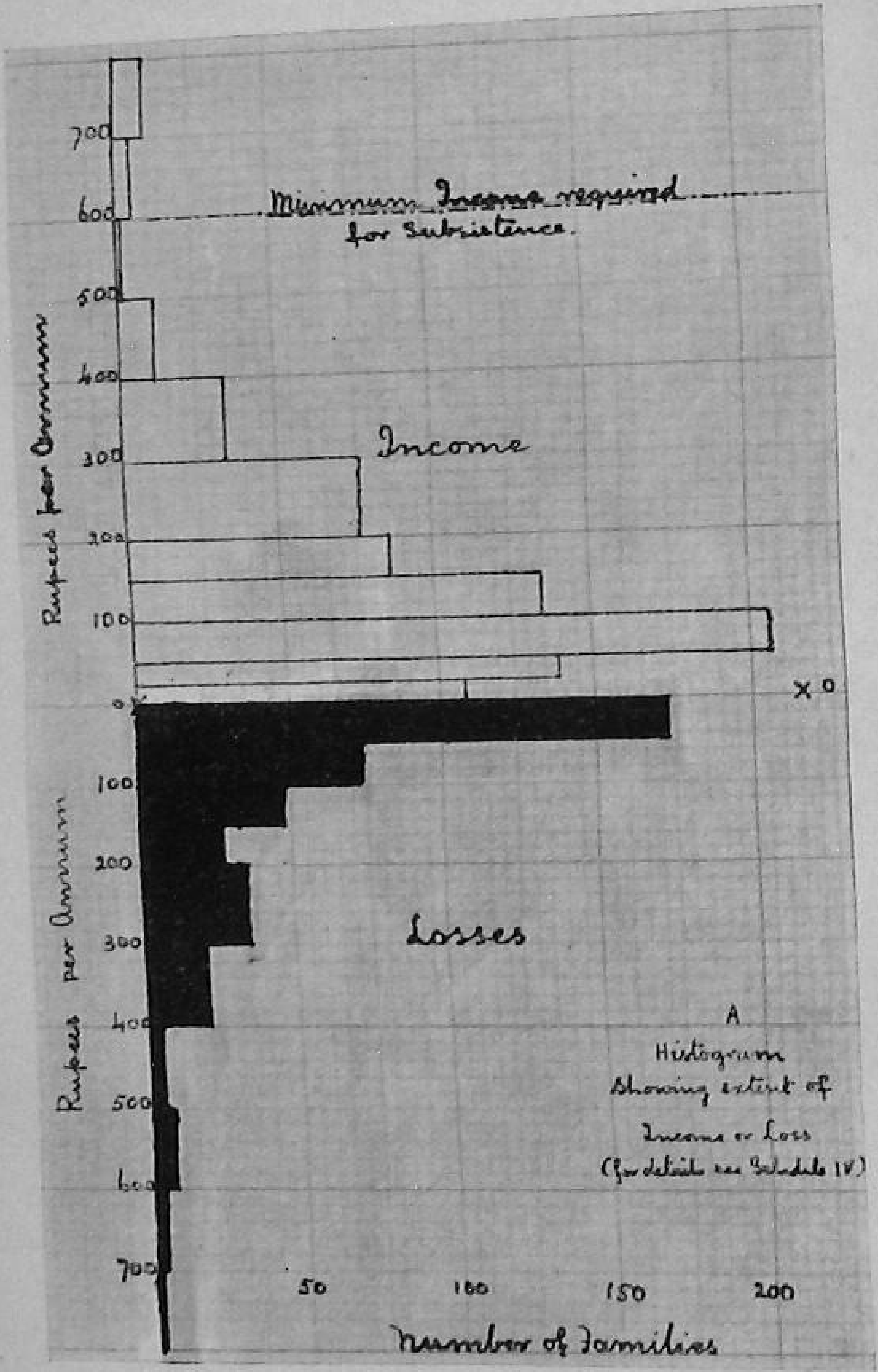
Showing Extent of net Income

Analysis

Showing Extent of net Loss

Income per capita Rs. as.	Loss per capita Rs. as.	Income 1 to 25	Income 26 to 50	Income 51 to 100	Income 101 to 150	Income 151 to 200	Income 201 to 300	Income 301 to 400	Income 401 to 500	Income above 500	Total families with Income	Loss 1 to 50	Loss 51 to 100	Loss 101 to 150	Loss 151 to 200	Loss 201 to 300	Loss 301 to 400	Loss 401 to 500	Loss above 500	Total families with Loss	Families with no Income	No. of families examined
9—9		2	1	4	4	1	1	1			14	2				1	1			4	1	19
16—2		2	1	3	3	2	1				12	4		1	1		1			7		19
13—5		1	4	1	2	1					9	3								3		12
25—6		1		2		1	1				5	1								1		6
-10		6	1	2	1						10	6		2		1				9		19
11-10		1	3	5	1				1		11	5								5		16
15—4				4	1	1	1	2	1	1	11	2		1	2		1		1	7		18
21—4		2	2	5	4	1	1				15	1				1				2		17
17—8			1	1	2	1	1	1			7	1	1	1						3		10
5-10		2	3	1	1	1					8	3			1	1				5		13
10-12		1	4	8	2	2		1	1		19	3	2	2		2				9	1	29
20—2		1	2	3	1	2	2				11	3								3		14
13—4		3	3	2	1	2	1				12	3								3		15
18—1		2	1	3	3						9	4								4		13
1-13		4	4	2							10	2	1							3		13
	15-10					1					1	1	1	1					1	4		5
16—4		2	6	3	1	1	3	1			17	1				1	1			3		20
12—3		30	36	49	27	17	12	6	3	1	181	45	5	8	4	7	4		2	75	2	258

Note:—The analysis of the Extent of Income or Loss arrived at after deducting Land Revenue from the Income shown in the Production Account.


Minimum Income required for Subsistence.
Income
Losses
Rupees per Annum
Rupees per Annum
700
600
500
400
300
200
100
0
100
200
300
400
500
600
700
50
100
150
200
Number of Families
A
Histogram
Showing extent of
Income or Loss
(for details see Schedule IV)

education is provided in most States upto the secondary standard, and then to get a free university education is within the reach of all who desire it.

Income per Family

A family in Matar Taluka consists usually of a man, a woman and three children. If we regard three children as being equivalent to two adults, on the basis of Rs. 100 per head for living expenses for a year, a Patidar family would require an income of Rs. 400 per annum. If we take into consideration expenses other than food and clothing, such as medical aid, social and educational expenses etc. we have to add 50 % to this standard which will bring the minimum requirement to Rs. 600 per family per year.

Our analysis of the net incomes for the year of 1215 families, from 54 villages, as tabulated in Schedule IV shows that 394 families have only losses to live upon, and 12 of these have losses of over Rs. 500 each. Fourteen show no income at all. The others range as follows:—

Rs. 1 to 100	per year	453	families.	37.3	Percent
,, 101 ,, 200	,,	220	,,	18.1	
,, 201 ,, 300	,,	77	,,	6.3	
,, 301 ,, 600	,,	43	,,	3.5	
over Rs. 600	,,	14	,,	1.2	
		807		66.4	

It will be observed that only 14 families, or 1.2 % of the total, come within the standard of Rs. 600 per family per year, and also that 861 families out of the 1215 have losses, no income or an income of less than Rs. 100 per year. It is indeed a miracle how these people are able to eke out a living. Thus 98.8% of the families are living much below the minimum standard set out above.

Income per capita

In 13 villages the average result is a loss. Only one village, Navagam, shows a per capita income of Rs. 70 per annum, while the others work out as follows:

From Rs. 30 to 40	per head per annum in	2 villages
,, ,, 25 ,, 30	,, ,,	2 ,,
,, ,, 20 ,, 25	,, ,,	9 ,,
,, ,, 15 ,, 20	,, ,,	9 ,,
,, ,, 10 ,, 15	,, ,,	8 ,,
Under Rs. 10	,, ,,	10 ,,

If these villages were subject to income tax, only one family would be liable to assessment and if a subsistence allowance of Rs. 600 be granted only 14 families, out of the 1215, will be liable to tax.

The average income per family for the whole taluka works out to Rs. 67, or in other words Rs. 14 per head. This is almost one-tenth of what we have seen to be the minimum required for subsistence. It is interesting to

SCHEDULE V

SOURCES AND AMOUNT OF INCOME

Table 1

Agricultural

Village	*Cotton* Realised in cash Rs. as.	Given in debt Rs. as.	Kept in house Rs. as.	Total Rs. as.	*Grains* Realised in cash Rs as	Given in debt Rs. as.	Kept in house Rs. as.	Total Rs. as.
Limbasi	554-10	37-4	37-8	629-6	3410-4	664.12	9455-7	13530-7
Vasai	15			15	520-12	278-12	1565-1	2364-9
Sayla	130-4			130-4	627	154-12	2678-8	3460-4
Asamli	87	2-8		89-8	1376-4	307.12	1859-12	3543.12
Palla	302-8			302-8	725-4	2	1073-4	1800-8
Punaj	71-3	6		77-3	1465	541	1986-7	3992-7
Kunjra	21-4			21-4	226-8	791-8	1380-13	2398-13
Adeva	251	30	7-8	288-8	1172-4	244	2966-9	4382-13
Valotri	169		3	172	1267-2	406-4	2255-15	3929-5
Moraj	57-2	1-4	6	64-6	297-4	96-4	2420-14	2814-6
Chikbalia	77			77	1059	806-4	1830-8	3695-12
Pariaj					82-8	10-4	477-12	570-8
Zichka	64-8		23	87-8	1797-8	725	2805-10	5328-2
Khanpur	274-2	45-8	1-14	321-8	172-8	81-4	3171-11	3425-7
Marala	48-11	3	10-8	62-3	625.14	162-2	2155-12	2943-12
Tranja	754-6	48		802-6	2077-8	185-4	4971-4	7234
Bhalada	17-12			17.12	430-8	262-6	2032-8	2725-6
	2,895-6	173-8	89-6	3,158-4	17,333	5,719-8	45,087-11	68,140-3

Note:—Income in kind is calculated at current market price of the commodities used by the farmer.

Limbasi Group

Fodder: Realised in cash Rs. as.	Fodder: Given in debt Rs. as.	Fodder: Kept in house Rs. as.	Fodder: Total Rs. as.	Bullocks manure Rs. as.	Cart hire Rs. as.	Total agricultural Income Rs. as.	Dairy: In cash Rs. as.	Dairy: Kept in house Rs. as.	Dairy: Total Rs. as.	Non-Agricultural: Labour: In cash Rs. as.	Non-Agricultural: Subsidiary occupation Rs. as.	Non-Agricultural: Miscellaneous Rs. as.	Total Non-agricultural Income Rs. as.	Grand Total Rs. as.
32		4017-13	4049-13	333-8		18543-2	1354-8	2751-6	4105-14	1036-5	1314	558-11	7014-14	25558-0
40-8	66-8	663-13	770-13	209-8		3359-14	609-4	1074-6	1683-10	1358-2	100	343	3484-12	6844-10
46		1331-12	1377-12	77-13	68	5114-1	1385-4	893-10	2278-14	296-12	37	195-15	2808-9	7922-10
1		589-1	590-1	8-5		4231-10	794-9	761-5	1555-14	714-4	401-4	15	2686-6	6918
		580-12	580-12	13	40	2736-12	1355-12	1043	2398-12	218-8	10	154	2781-4	5518
2-12		746-9	749-5	43-4	195	5057-3	914-4	860	1774-4	863	60	230-8	2927-12	7984-15
		468-2	468-2	19-5	30	2937-8	535	363-15	898-15	325	28	185	1436-15	4374-7
10-8		1135-8	1146	117-12		5935-1	447	1094-8	1541-8	362	406	58-12	2368-4	8303-5
		1040-5	1040-5	39-3	350	5530-13	815	816-9	1631-9	306		457-4	2394-13	7925-10
11-4	10	900	921-4	78-8		3878-8	858	815-6	1673-6	521-7	316	1405-8	3916-5	7794-13
		828-8	828-8	25-12	60	4687	1300-12	772	2072-12	697-2		145	2914-14	7601-14
3	22-4	163	188-4	24-6	65	848-2	217-8	215-14	433-6	768-4		225	1426-10	2274-12
		1519-8	1519-8	65-9		7000-11	1177-8	1434-2	2611-10	351	246		3208-10	10209-5
51		1796-	1847	87-9	30	5711-8	1351	1205-15	2556-15	75	125	395-5	3152-4	8863-12
59-2	22-2	902-4	983-8	81	30	4100-7	961-8	954-6	1915-14	291-9	6	50	2263-7	6363-14
104-8	20	2314	2418-8	166	170	10790-14	1883-6	1793-12	3677-2	818-15	363	114	4973-1	15763-15
171-12		870-10	1062-6	60-3	150	4015-11	677	671-2	1348-2	1253-4	1053	467-15	4122-5	8138-
533-6	140-14	19,867-9	20,541-13	1,450-9	1,188	94,478-13	16,637-3	17,521-4	34,158-7	10,256-8	4,465-4	5,000-14	53,881-1	148,359-14

Villages	1 to 5 f	1 to 5 a	1 to 5 w	1 to 5 b	5 to 10 f	5 to 10 a	5 to 10 w	5 to 10 b	10 to 15 f	10 to 15 a	10 to 15 w	10 to 15 b
Navagam	4	9	9	1	3	25¾	6	3	20	248	31	33
Pinglaj	4	18	10	5	3	22½	6	5	5	70¾	21	9
Kathwada	1	4	2	1	2	19	4	3	6	76¼	19	11
Chanindra					5	40¾	8	7	2	30	6	3
Dharoda	5	13	13		4	31½	10	4	6	77¾	16	9
Pansoli	2	6	2	1	4	31½	9	6	5	72¾	13	11
Gobhlaj	1	1	1	1	2	13	4	3	10	131½	26	17
Bherai	3	11	5	1	4	34	11	7	13	169¼	34	28
Dhathal	1	4	4	1	1	7	3	1	4	50½	7	5
Chitrasar	2	8	2	2	1	7	3	1	1	12½	2	
Vadala	1	3	2	1	5	40¼	11	5				
Nayka	2	8	1	2	9	71½	18	15	20	256¾	48	40
Kanera	4	15½	7	2	8	66¾	22	12	5	62¾	19	9
Radhu	2	5½	1		4	30¼	4	3	4	51¼	8	2
Rasikpura	1	1	2	1					4	55¼	11	6
Kaloli	4	6	7	1	1	6		1	1	11	4	2
Chandana	3	7½	3	1	2	14½	4	1	4	58½	11	3
Mahelaj					2	12	2		3	42	4	4
Shetra					2	17	6	2	3	43¾	9	4
Vavdi	1	3	2	1	1	9	2	1	1	13	1	2
	41	123½	73	22	63	499¼	133	80	117	1533½	290	198

f—number of families

a—aggregate are in bighas

Navagam Group

16 to 24				24 to 32				22 to 48				48 to 80				above 80				Totals			
f	a	w	b	f	a	w	b	f	a	w	b	f	a	w	b	f	a	w	b	f	a	w	b
7	134½	11	18	9	245½	16	26	5	185¾	13	25	1	62½	2	7					49	911	88	113
1	20	4	3					1	34¾	4	3									14	166	45	25
				2	56¼	13	6	2	80¼	13	5	1	52	5	2					14	287¾	56	28
6	129¾	20	13					1	38½	4	4	1	73	4	4	1	101½	5	6	16	413½	47	37
11	217¼	38	21	1	26	2	1	4	154¼	6	8	2	108¾	4	4					33	628½	89	47
3	70½	9	10									2	99	7	6					16	279¾	40	34
9	171	12	18					3	120	4	11	3	152¼	5	12	1	86	1	1	29	674¾	53	63
3	56½	14	7	3	90	5	10	1	35	6	5					1	105	2	4	28	500¾	77	62
4	79¾	6	7	2	54	7	4	1	38	1	3	2	111	7	7					15	344¼	35	28
3	63½	4	5	1	30	2	2	3	109½	8	7	1	50½	1	1					12	281	22	18
2	41¾	4	4	1	27	2	2	1	42	3	4	1	80	2	4					11	234	24	20
19	377	33	34	10	282¾	31	23	9	345½	23	30	4	244	14	11					73	1585½	168	155
3	62	11	6	3	79	5	6													23	286	64	35
8	153	19	10	8	225½	18	16	9	359¾	24	17	1	50	2	4					36	875¼	76	52
5	104	10	8	4	119	5	9													14	279¼	28	24
3	60½	7	5	5	139½	7	9	3	105	9	5	1	71½	8	4					18	399½	42	27
7	147½	19	14	2	56	3	4	2	72	4	3									20	356	44	26
4	79¾	11	7	6	168½	15	10	2	80½	7	5	1	56	2	2					18	438¾	41	28
1	16	7	2	1	28	3	2													7	104¾	25	10
5	92	15	10	3	80½	9	6	1	33½	7	4									12	231	36	24
104	2076¼	254	202	61	1707½	143	136	48	1834¼	136	139	21	1210½	63	68	3	292½	8	11	458	9277¼	1100	856

w—agricultural workers

b—bullocks

(8 bighas—5 acres)

Village	1 to 5				5 to 10				10 to 16			
	f	a	w	b	f	a	w	b	f	a	w	b
Matar	3	12	10	1	3	24	6	4	3	38½	7	4
Traj	1	2			2	12½	1		1	14	1	2
Piparia	1	4	2		2	11½	6		4	51½	11	7
Koshial	1	4¼	1						1	10	1	1
Machhial					4	30½	8	2	4	52½	10	5
Khadialapura	2	5¼	4		3	21	3	3	3	41	7	4
Vasana					1	7¼	4		2	28	3	2
Sokhada	1	1	2									
Undhela	1	3½	2						3	37¾	3	3
Vansar	2	6¼	3		2	11¾	5	1	3	35	3	2
Sandhana	8	23¾	18	2	6	43	14	4	8	103¼	15	11
Radhwanaja	1	1	1		2	18	4	1	6	80½	11	7
Antroli	7	21	17	2	5	34	17	3	3	35	16	3
Khandhli	1	4¼	1		3	25¼	3	1	5	67¼	7	7
Lawal					1	6	1	1	6	77½	13	7
Maliataj									1	11½	2	1
Alindra	2	4½			4	26½	6	2	8	95¾	12	7
	31	93	.61	5	38	271¼	78	22	61	779	122	73

f—number of families

a—aggregate area in bighas

Matar Group

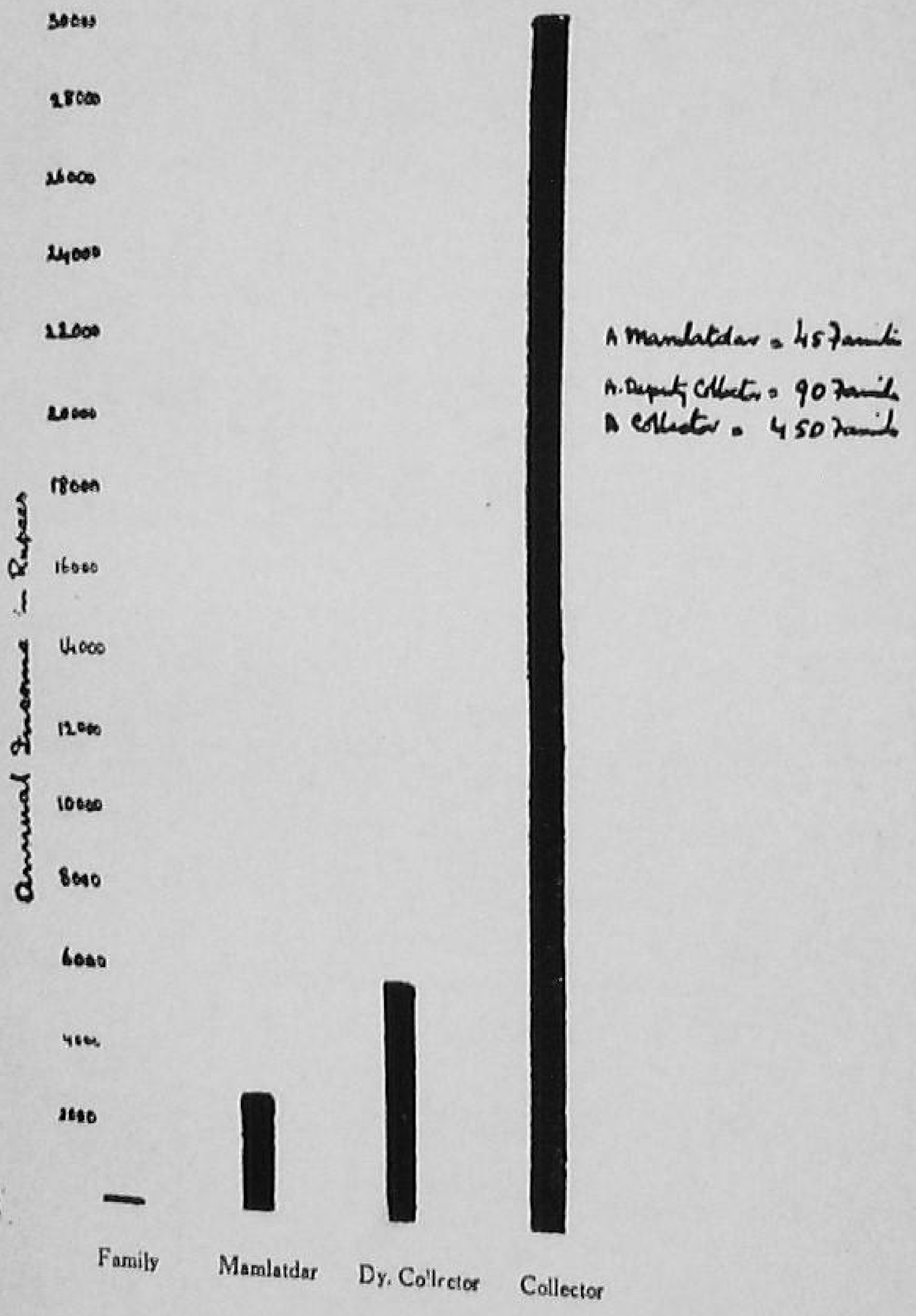
16 to 24				24 to 32				32 to 48				48 to 80				above 80				Totals			
f	a	w	b	f	a	w	b	f	a	w	b		a	w	b	f	a	w	b	f	a	w	b
4	79¼	7	6	2	54	10	6	1	46	1	2									16	253¾	41	23
3	57½	5	4	3	83	8	6	6	229¼	9	14	1	52	4	2					17	450¼	28	28
2	42½	6	4													1	93½	6	4	10	203	31	15
3	61	7	4	1	28	4	2													6	103½	13	7
8	141¼	34	10	1	31	2	3	1	40	6	2									18	295¼	60	22
3	59	5	4	3	77	6	6	1	37¼	1	2	1	71	3	3					16	311½	29	22
2	43	11	3	1	26	3	1	4	159	10	7	3	181	5	9					13	444¼	36	22
7	133½	18	12	5	138	15	10	1	33	4	2									14	305½	39	24
4	76¼	8	7					2	65¼	5	4									10	182¾	18	14
4	81¾	13	7	1	24	4	3													12	158¾	28	13
4	83¼	9	7					1	36	0	2									27	289¼	57	26
1	17	5	2	2	52½	8	5	1	36	4	2									13	205	33	17
																				15	90	50	8
3	60¾	10	3																	12	157½	21	11
4	81	13	9	1	28	3	2													12	192½	30	19
1	22	3	2	2	54¼	8	4					1	62	3	2					5	149¾	16	9
3	63	6	6	2	53	6	4	1	44¾	4	2									20	287½	34	21
56	1102	160	90	24	648¾	77	52	19	726½	45	39	6	366	15	16	1	93½	6	4	236	4080	564	301

w—agricultural workers

b—bullocks

(8 bighas—5 acres)

VIII



30000
28000
26000
24000
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
Annual Income in Rupees
A Mamlatdar = 45 Families
A Deputy Collector = 90 Families
A Collector = 450 Families
Family
Mamlatdar
Dy. Collector
Collector

note that the Mamlatdar of the taluka is paid a salary equivalent to the average income of 45 families, and the Deputy-Collector's salary is more than 90 times such family income, while the Collector's salary, without counting allowances, is over 450 times the income of a family. Such heavy payments to Government officials, naturally, leaves little for developmental purposes such as education, sanitation, health etc.. Apart from this, a large part of the salaries paid to the Collector goes out of the country, if he happens to be a Britisher. In this manner the present system of administration is doubly destructive to the welfare of the villages.

Budget

Sources of Income

Amongst the schedules will be found tables giving, in village totals, the details of income, expenditure and the net results for all the families we have examined. In this, we have taken into account receipts in kind and in cash. The following table shows sources of income by way of percentages in the three groups.

Agricultural

	Limbasi	Navagam	Matar
Grain	46.0	59.4	41.9
Cotton	2.1	4.5	9.3
Fodder	13.8	8.2	10.3
Sundries	1.8	1.5	2.4
	63.7	73.6	63.9

Non-Agricultural

Dairy	23.0	16.1	24.3
Labour	6.9	7.0	5.3
Miscellaneous	6.4	3.3	6.5
	36.3	26.4	36.1
	100.0	100.0	100.0

It will be noticed that the main item in the above budget is the income from grain. This particular year the cotton crop was damaged in Limbasi by a frost and therefore, it does not afford a reliable basis for comparison. Income from Dairy appears to be the next most important source. This represents the return from the occupation, mainly, of the house-wife.

The high percentage of fodder growing in Limbasi is due to the fact that the grains cultivated in this area do not yield as a bye-product as much fodder as paddy yields in the form of straw. Paddy is the principal crop of Navagam and to a lesser extent in Matar and hence their fodder percentage is a little low.

Expenditures

The table given below represents the ite ms of expenditure as percentages of the total:

Productive

	Limbasi	Navagam	Matar
Bullocks	24.2	19.1	20.3
Servants	10.4	11.3	6.9
Labour	21.6	35.9	25.2
Seeds	14.2	6.5	5.4

SCHEDULE VI

PRODUCTIVE EXPENDITURE

Table 1

	Bullocks			Servants		
Village	In cash Rs. as	In kind Rs. as.	Total Rs. as.	In cash Rs. as.	In kind Rs. as.	Total Rs. as.
Limbasi	1658- 1	3514- 1	5172- 2	759.12	779	1538.12
Vasai	688- 3	700- 8	1388.11	32	100	132
Sayla	421- 8	1220- 6	1641.14	128- 6	212- 6	340.12
Asamli	300- 6	591	891- 6	501	455	956
Palla	510- 4	490.12	1001	494	373	867
Punaj	920.15	629.12	1550.11	236- 4	325	561- 4
Runjra	85- 14	375.10	461- 8	220	150	370
Adeva	908.14	1036.12	1945.10	793	686- 8	1079- 8
Valotri	640- 1	786- 5	1426- 6	323	244	567
Moraj	669- 4	834- 4	1503- 8	44- 8	65	109- 8
Chikhalia	475- 9	492.14	968- 7	254- 8	234	488- 8
Pariaj	149.10	105- 4	554-14			
Zichka	1568- 8	1296	2864- 8	1234	1040	2274
Khanpur	637- 6	1862- 8	2499.14	534- 8	669	1203- 8
Mirala	664.10	958	1622.10	358	286	644
Tranja	500- 3	2115.12	2615.15	456- 8	392	848 -8
Bhalada	328.14	732- 2	1061	25	15	40
	11,128- 2	17,741.14	28,870	6,394- 6	6,025.14	12,420-4

Limbasi Group

Agricultural Labour			*Seeds*		
In cash Rs. as.	In kind Rs. as.	Total Rs. as.	In cash Rs. as.	In kind Rs. as.	Total Rs. as
2969– 7	1371	4340– 7	1071-12	2008	3079-12
1441-13	276– 2	1717-15	581-12	128– 5	710– 1
943-14	304– 2	1248	536-15	173– 4	710– 3
794– 8	35-13	830– 5	301-13	349-13	651-10
1470– 8	81-10	1552– 2	429– 4	15– 7	444-11
1583-15	159– 4	1743– 3	937-12	133– 5	1071– 1
341– 4	92– 9	433-13	392-11	61-14	454– 9
989	631-10	1620-10	1040– 2	420– 2	1460– 4
620– 4	511– 3	1131– 7	751-11	668– 1	1419-12
1139– 5	197-11	1337	381	89-13	470-13
650– 8	250-12	901– 4	692– 2	146– 7	838– 9
345– 4	64-10	409-14	41– 8	26-11	68– 3
1166– 8	857– 3	2023-11	1862– 5	428– 4	2290– 9
1234– 2	596-10	1830-12	894-10	371-14	1266– 8
796– 1	200– 2	996– 3	358– 4	259– 5	617– 9
2160-12	455-10	2616– 6	735-11	244– 6	980– 1
866-11	182-11	1049– 6	323– 3	94– 9	417-12
19,513-12	62,68-10	25,782– 6	11,332– 7	5,619– 8	16951-15

Note: The mortgage interest and rent only represent actual payment without taking into consideration the accrued liabilities. Interest on other loans have not been charged in the above account.

Limbasi Group

Seeds

Total Rs. as.	In cash Rs. as.	In kind Rs. as.	Total Rs. as
4340- 7	1071-12	2008	3079-12
1717.15	581-12	128- 5	710- 1
1248	536-15	173- 4	710- 3
830- 5	301-13	349-13	651-10
1552- 2	429- 4	15- 7	444-11
1743- 3	937-12	133- 5	1071- 1
433-13	392-11	61-14	454- 9
1620-10	1040- 2	420- 2	1460- 4
1131- 7	751-11	668- 1	1419-12
1337	381	89-13	470-13
901- 4	692- 2	146- 7	838- 9
409-14	41- 8	26-11	68- 3
2023-11	1862- 5	428- 4	2290- 9
1830-12	894-10	371-14	1266- 8
996- 3	358- 4	259- 5	617- 9
2616- 6	735-11	244- 6	980- 1
1049- 6	323- 3	94- 9	417-12
25,782- 6	11,332- 7	5,619- 8	16951-15

...mortgage interest and rent only represent actual ...r without taking into consideration the accrued ...s. Interest on other loans have not been charged ...e above account.

Limbasi Group

Manure In cash Rs. as.	*Manure* In kind Rs. as.	*Manure* Total Rs. as.	Implem nt Repairs Rs. as.	Rent Rs. as.	Interest on mortgage land Rs. as.	Total agricultural expenditure Rs. as.	*Dairy* In Cash Rs. as.	*Dairy* In Kind Rs. as.	*Dairy* Total Rs. as
330	736–8	1066–8	1037	218.10	90	16543–3	2456	1401–5	3857–5
54.12	458–4	513	444	87–4	6	4998.15	535.12	315.11	851–7
92	249–9	341–9	394.12	128.13	19.11	4825.10	603.12	358.13	962–9
54–4	36–8	90.12	97.12		11	3528.13	754.14	163–6	918–4
66–8	64.12	131–4	312–8	207–8	150	4666–1	1075–8	280.10	1356–2
86–4	109.12	196	479–7	146–8	32	5780–2	830	281–1	1111–1
25	45–4	70–4	85.15	13		1889–1	249	180.10	429.10
85	217–8	302–8	541–6	18		7367.14	927.14	228–8	1156–6
18	108–8	126–8	279	10		4960–1	578	385.12	963.12
96–8	157	253–8	257–9	165	19–8	4116–6	490–2	386.12	876.14
44	87	131	260–2	110		3697.14	376	403–8	779–8
5	55.14	60.14	38.12	20		852–9	196–8	76.12	273–4
211–8	220–8	432	425–6	2	2	10314–2	1462–8	357	1819–8
96	207–4	303–4	516.10	54		7674–8	1162–8	619	1781–8
129.13	225–8	355–5	261.10	154	17–8	4668.13	943	315–4	1258–4
104.12	472–8	577–4	533	350.10		8521–12	1575.12	723.12	2299–8
91	158	249	366.13	133	30	3346.15	516–4	388–4	904–8
1,590–5	3,610–3	5,200–8	6331.10	1818–5	377.11	9,7752.11	14,733–6	6,866	21,599–6

Village	*Bullocks* In Cash Rs. as	In kind Rs. as.	Total Rs. as.	*Servants* In cash Rs. as.	In kind Rs. as.	Total Rs. as.
Navagam	3199- 5	1160- 8	4359.13	2903	1741	4644
Pinglaj	353	299- 8	652- 8	69- 2	68	137- 2
Kathwada	98- 1	84- 8	182- 9			
Chanindra	487	283	770	320	253	573
Dharoda	458	762- 4	1220- 4	157- 8	115	272- 8
Pansoli	366.13	375	741.13	311	196	507
Gobhlaj	1424- 8	544- 2	1968.10	1036- 8	926- 8	1963
Bherai	873- 7	643- 4	1516.11	507	329	836
Dhatbal	392- 3	261	653- 3	318	217	535
Chitrasar	569- 3	323- 8	892.11	225	227	452
Vadala	367- 6	178- 8	545.14	372- 8	231	603- 8
Nayka	1863.13	1537.14	3401.11	1129- 8	704	1833- 8
Kanera	323.12	357- 2	680.14	199	139	338
Randhu	1161.12	1785.12	2947- 8	520	286- 8	806- 8
Rasikpura	433.13	249- 6	683- 3	235- 9	158 12	394- 5
Kaloli	623.14	610- 4	1234- 2	516	530- 8	1046- 8
Chandana	387- 6	672.14	1050- 4	106	140	246
Mahelaj	481- 3	1069	1550- 3			
Shetra	32- 5	98- 8	130.13			
Vavdi	255.14	314.12	570.10			
	14152.10	11610.10	25763- 4	8925.11	6262- 4	15187.15

Navagam Group

Agricultural

Labour			*Seeds*		
In cash	In kind	Total	In cash	In kind	Total
Rs. as.	Rs. as.	Rs as.	Rs. as.	Rs. as.	Rs. as.
8704-11	2679- 4	11383-15	348-14	301-10	650- 8
1369-14	255-13	1625-11	125- 4	15- 8	140-12
678- 4	23- 8	701-12	147-10	3- 2	150-12
2035- 2	411	2446- 2	184-10	89-12	274- 6
2063- 1	220- 8	2283- 9	466- 6	37- 3	503- 9
2137- 4	440- 8	2577-12	161	88	249
2745- 4	741- 5	3486- 9	300-13	144- 6	445- 3
3065-12	519-14	3585-10	247-14	94- 3	342- 1
1228- 8	34	1262- 8	144-12	98- 8	243- 4
824	73- 2	897- 2	231- 4	40	271- 4
667-12	49- 6	717- 2	184-10	37-10	222- 4
5152-14	1350-13	6503-11	1637- 1	174- 5	1811- 6
1115-14	379- 1	1494-15	224- 3	15- 9	239-12
3540-13	258-14	3799-11	1109- 8	43- 5	1152-13
780-14	91-10	872- 8	197- 4	18- 3	215- 7
1574- 4	100-14	1675- 2	582- 7	30-15	613- 6
1220	132	1352	280-12	13- 1	293-13
807-12	195-14	1003-10	554- 1	85- 6	639- 7
77	24- 4	101- 4	75-12	- 4	76
698-14	42	740 14	158- 3	15	173- 3
40487-13	8023-10	48511- 7	7362- 4	1345-14	8708- 2

Note: The mortgage interest and rent only represent actual payment without taking into consideration the accrued liabilities. Interest on other loans have not been charged int he above account

Navagam Group

Manure			*Implements Repairs*						*Dairy*		
In cash Rs. as.	In kind Rs. as.	Total Rs. as.	In cash Rs. as.	In kind Rs. as.	Total Rs. as.	Rent Rs. as.	Water Rs. as.	Total Rs. as.	In cash Rs. as.	In kind Rs. as.	Total Rs. as.
1642	527-8	2179-8	677.12	165-6	843-2			24050.14	2549.12	878-2	3427.14
6	63-8	69-8	112.10		112.10	10		2748-3	145	108	253
	90	90	63-4		63-4	25		1213-5	137.10	21-8	159-2
170	93 8	263-8	274.14		274.14	5-4		4607-2	554	177-8	731-8
25	45	70	348.11		348.11		162	4860-9	1087	315.10	1402.10
75	210-8	285-8	95.14		95.14			4456.15	671-8	227	898-8
303	259	562	354.11	107	461.11	1019		9906-1	977-6	364.13	1342-3
105	143	248	252-4	113-4	365-8		83	6976.14	978-8	336-4	1314.12
14	102-8	116-8	134-5	4	138-5	96-8		3045-4	413-6	142-8	555.14
27	48-4	75-4	97	37	134	39	40	2801-5	913	137	1050
34	125	159	137	47-8	184-8	4	41-8	2477.12	789.14	202-8	992-6
275-4	527-7	802.11	428-8	534-9	963-1	109	45	15470	1775-2	726-1	2501-3
105-8	58-8	164	96.14	157-9	254-7			3172	626-4	184-8	810.12
129	211-8	340-8	185-9	209	394-9	574		10015-9	1827.10	704.12	2532-6
31	83-8	114-8	73-8	81.12	155-4	60	26	2521-3	670.12	209.11	880-7
155	96	251	119-8	125	244-8	163-8		5228-2	991-8	273	1264-8
57-8	130	187-8	130-4	55	185-4	194		3518.13	528-8	290-4	818.12
1	75.12	76.12	172	76	248	15		3533	549-8	399-6	948.14
	14.12	14.12	81-8		81-8			404-5	65	11	76
4-8	44	48-8	128.14	3	131.14	37		1702-1	217	97-4	314-4
3159.12	2949-3	6108.15	3964.14	1716	5680.14	2351-4	397-8	112709-5	16468-4	5806.11	22274.15

Table 3

Village	*Bullocks*			*Servants*		
	In cash Rs. as.	In kind Rs. as.	Total Rs. as.	In cash Rs. as.	In kind Rs. as.	Total Rs. as.
Matar	327—2	303—4	630—6	138	116	254
Tra	408-10	1036	1444-10	375—	396	771—4
Piparia	219—6	319	538—6			
Koshial	95—4	146	241—4			
Machhial	265—2	316-12	581-14			
Khadialapura	329—2	353	682—2	107	109	216
Vasana	812—8	519	1331—8	1105	470	1575
Sokhda	454—7	541	995—7	607	477	1084
Undhela	427-12	512--8	940—4			
Vansar	278—6	191	469—6	50	60	110
Sandhana	546—2	372	918—2			
Radhwanaj	378-15	364—6	743—5		30	30
Antroli	139—5	184	323—5			
Khandhli	422—2	369	791—2			
Lawal	175—3	276-12	451-15			
Maliataj	309	518	827	80	90	170
Alindra	498-12	570—8	1069 -4	95	90	185
	6087—2	6892—2	12979—4	2557-4	1838	4395—4

Matar Group

Labour			Seeds		
In cash Rs. as.	In kind Rs. as.	Total Rs. as.	In cash Rs. as.	In kind Rs. as.	Total Rs. as.
812—4	118—8	930-12	214—6	44—6	258-12
1128—4	144--14	1273—2	539—3	72—8	611-11
502—4	98-12	601—0	111-11	24—7	136—2
300—8	39—8	340	105-12	5—4	111
650-12	94	744-12	182—3	30	212—3
847—5	95—1	942—6	213-12	22-12	236—8
3026—5	133	3159—5	271—8	80—4	351-12
848—4	197—7	1045-11	214—9	79—5	293-14
998	127—8	1125—8	63—2	59-10	122-12
397-12	93-14	491-10	129-10	19-14	149—8
922-15	153-14	1076-13	206—2	21-14	228
785-12	159—5	945—1	90—9	38-15	129—8
161—6	37—4	198-10	55-12	19-10	75—6
437—2	75—8	512-10	60—8	35—8	96
441—5	82-15	524—4	134	33—6	167—6
734	74—8	808—8	54—8	56-12	111—4
1249—8	96—4	1345-12	72-12	83—8	156—4
14243-10	1822—2	16065-12	2719-15	727-15	3447-14

Note: The mortgage Interest and rent only represent actual payment without taking into consideration the accrued liabilities. Interest on other loans have not been charged in the above account.

Matar Group

Manure			Implements Repairs						Dairy		
In cash	In kind	Total	In cash	In kind	Total	Rent	Miscellaneous	Total Agricultural	In cash	In kind	Total
Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as
170	189	359	111—4	53—8	164-12	186		2783-10	858	363—6	1221—6
137—8	159	296—8	135—4	91-12	227	198		4822—3	790	292-12	1082-12
15	65	80	129—5		129—5	132		1616-13	223—4	130-12	354
20	48	68	25—8		25—8	43		828-12	304	89—8	393—8
40	138—8	178 -8	90—4	46-12	137	57		1911—5	282	208—8	490—8
55	136—8	191—8	88—6	10—4	98-10	98		2465— 2	601	246—8	847—8
66	110—8	176—8	221-14	29	250-14	315	48—8	7208—7	781	301-12	1082-12
267	395	662	245-14	45—8	291—6	107		4479—6	1003	333	1336
297	357—8	654—8	87-12	41—8	129- 4	21—	49—8	3043—4	752	212	964
72	98	170	32-12	28—8	61—4	69		1520-12	685	119	804
200	258	458	172—8	42	214—8	216—8		3111-15	993	326-12	1319-12
418	187	605	65	35—4	100—4	111—8		2664-10	634	250—8	884—8
10	96	106	79	2	81	12		796—5	271—8	108-13	380—5
94	147	241	42—8	32	74—8	81		1796—4	912	385—8	1297—8
18—8	287	305—8	96—1	31—8	127—9	332	27	1935-10	653—2	213—4	866—6
240	125	365	21	15	36	54	190	2561-12	187	272—8	459—8
226	320	546	78	47	125		1621-12	5048-12	1068	444	1512
2346	3117	5463	1722—4	551—8	2273-12	2033—8	1936—8	48594-14	10997-14	4298—7	15296—5

SCHEDULE VII

ANNUAL DOMESTIC EXPENDITURE

Limbasi Group—Table 1

Village	Food	Clothes Shoes etc.	Vessels houses repairs	Medicine	Religious
	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
Limbasi	14763-3	3627-8	857-2	included in Vessels	309-13
Vasai	5156-6	2100-8	230-4	"	308-8
Sayla	4623-15	1247	244-3	"	113-4
Asamli	4324-9	873-13	82-4	"	50-4
Palla	4482-14	1296-10	117-12	"	64-12
Punaj	5158-3	1334-10	247-4	"	174-4
Kunjra	2090.13	468-2		"	59-6
Adeva	5327-7	1198-4	256-10	"	203-8
Valotri	3803-5	879.14		"	90-8
Moraj	5368-7	1848-2	547-6	"	130-2
Chikhalia	3898	875-2			135
Pariaj	1381.13	411-8			49.14
Zichka	6597	1571.10	150	"	82-5
Khanpur	6358-5	1761.12	255-8	"	93-8
Marala	4078.13	1512-8	104	"	69
Tranja	9390-2	2544-1	406.12	"	157
Bhalada	4713.10	1631	272.12	"	123-15
	91516.13	25182	3771.13	"	2214.15

Note: No interest is taken into account in the above table.

Limbasi Group — Table 1

Social	Tobacco Liquor etc	Education	Miscellaneous	Total
Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
1040-10	468– 8	125– 4	431-15	21623-15
68– 6	289– 8	6– 4	127-14	8287-10
61-12	387-12		224– 8	6902– 6
120– 8	116– 8	200	99-13	5867-11
93	125– 8	3	267– 4	6450-12
86 –8	282– 4	87	154– 8	7524– 9
7	139		86-12	2851– 1
248	244	8-13	195-12	7682– 6
78– 8	305		881– 7	6038-10
253– 8	80– 8	18– 7	435– 7	8681-15
63	180		208-12	5359-14
59– 8	51		207– 6	2161– 1
493	417	27– 4	165– 8	9503-11
434	232-13	24– 6	466-12	9627
637	247– 8	– 6	194-12	6843-15
322– 8	312– 4	79-12	315– 4	13527-11
180-12	323	171– 0	200	7616– 1
4247– 8	4202– 1	751– 8	4663-10	136550 4

Navagam Group—Table 2

Village	Food: In cash	Food: In kind	Food: Total	Clothes Shoes repairs	Vessels Houses
	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
Navagam	12806-7	869	13675-7	3159.10	676-8
Pinglaj	2236	89	2325	776-4	69-1
Kathwada	1948-5		1948-5	546-6	35
Chanindra	3325.12	190	3515.12	699-8	103-8
Dharoda	4000-10	1773.14	5774-8	1365-9	187.15
Pansoli	1238-4	1336.12	2575	671	89-6
Gobhlaj	3284-2	3416	6700-2	1648.10	171-2
Bherai	2566-2	2866-2	5432-4	1443-4	209-9
Dathal	1396-6	1103.12	2500-2	702	95
Chitrasar	2099.13	996.12	3096-9	719.14	124.10
Vadala	1820-7	1305	3125-7	713	109
Nayka	8393.12	7839.12	16233-8	3781-7	599.12
Kanera	2615.10	1578.14	4194-8	990-6	174-6
Radhu	5447-6	4422.13	9870-3	2493-8	327-9
Rasikpura	1855-2	1104.12	2959.14	829-4	109.11
Kaloli	2704.10	2339-2	5043.12	1248	175-6
Chandana	2286.12	1830.14	4117.10	979	137-10
Mahelaj	2380-4	1581.10	3961.14	1100.12	230-4
Shetra	500	229.12	729.12	206-2	28-5
Vavdi	963	615-8	1578-8	545	87
	63868.12	35489-5	99358-1	24618-8	3740.10

Note: No interest is taken into account in the above table.

Navagam Group — Table 2

Medicine	Religious	Social	Tobacco Liquor etc.	Education	Miscellaneous	Total
Rs. as.	Rs as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
500	360	1161	511.12	1276–4	856–1	22176.10
16	64	41	103–8		130–2	3524.15
10	18–8	27.12	76		46	2707.15
53	41–4	30–4	252		172	4867–4
	129	136	273–8	2–9	209.12	8078.13
97	59	56	149		139.14	3836–4
179	203.12	271–8	336–8	6.12	317–6	9834.12
6	110–8	129	352–8		283.15	7967
42	92	168–8	193		65–4	3857.14
60	49–8	201–8	173–8	50	145–4	4620.13
8	83–4	104	118		197.13	4458–8
192	449	478	792–8	106	836–4	23468–7
20	109–8	92–8	222.12	9	217.12	6030.12
112	267–6	396	426	38	561	14491.10
21–8	62	160	125–8		119	4386.13
78	101–8	121	207	123–4	311.13	7409.11
53	110	120	183	3	186–4	5889–8
	106–8	225	176.12	2	501	6304–2
	5	4	47		60	1080–3
7	30–8	29–8	89		137	2503–8
1454–8	2452–2	3952–8	4808.12	1616.13	5493–8	147495–6

Matar Group—Table 3

Village	Food In cash	In kind	Total	Clothes shoes etc	Vessels house repairs
	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
Matar	2422- 6	1864-10	4287	1144- 4	129- 8
Traj	2151-12	1917- 3	4068-15	910-12	230-11
Piparia	988- 4	851- 8	1839-12	571	55- 8
Koshial	608- 4	530-12	1139	382	20- 8
Machhial	1465-10	895	2360-10	796- 8	66
Khadialapura	1384-14	1249- 2	2634	719- 6	90
Vasana	1988-12	2055-12	4044- 8	985-12	113-8
Sokhda	1223-12	2247- 2	3470-14	822- 8	145
Undhela	833	1393- 3	2226- 3	527- 4	29
Vansar	1002	1056	2058	528- 6	79-10
Sandhana	2821-12	1776	4597-12	1481	121- 8
Radhwanaj	1173-15	1820-15	2994-14	654-12	99
Antroli	715	967- 8	1682- 8	448	66
Khandhli	822	1599- 6	2421- 6	583- 8	110-12
Lawal	796-12	1372- 2	2168-14	658- 4	95
Maliataj	514	1236- 8	1750- 8	364- 8	62
Alindra	1494- 4	2411	3905- 4	809- 8	106-12
	22,406- 5	25,243-11	47,650	12,387- 4	1,620- 5

Note: No interest is taken into account in the above table.

Matar Group — Table 3

Medicines	Religious	Social	Tobacco liquor etc	Education	Miscellaneous	Total
Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs as	Rs. as.	Rs. as.
34	100	271	199	46-4	269	6480
	73	173	148	19	156	5779-6
7-8	46-8	55	81	1	143-12	2801
	12	36	44-8	14	95	1743
23-4	35	58	115-8	4-8	173	3632-6
5	43	71-8	106	2	223-12	3894-10
35	96	114	208	17	424	6037-12
28	149	436	154-8	3	216-8	5425-6
54	42-12	106	68-12	20-8	179-5	3253-12
48	29	77	88	6	153-12	3067-12
64	133	200	214	25	313	7149-4
13	72-8	66	141	28-8	284	4353-10
3	26-8	52	111	2	146	2537
108	52	40-8	240	225	238	4019-2
12	38	39	92-8	14-4	137	3254-14
58	52	81	19	10-4	115	2512-4
118-8	81	81	125-8	114-3	238	5579-11
611-4	1,081-4	1,957	2,156-4	552-7	3,505-1	71,520-13

Manure	4.4	4.5	8.6
Implement Repairs	5.3	4.2	3.5
Rent	1.5	1.7	5.7
Mortgage Interest	.3	.3	.5
Dairy	18.1	16.5	23.9
	100.0	100.00	100.0

Family

Food	67.0	68.0	66.6
Clothes, shoes etc.	18.4	16.8	17.3
Tobacco, liquor etc	3.1	3.3	3.0
Education	0.5	0.1	0.8
Vessels, house repairs, medicines, religious, social, Miscellaneous.	11.0	11.8	12.3
	100.0	100.0	100.0

It will be seen that the cost of bullocks is one of the heaviest. We have shown in our chapter on cultivation that the bullocks are under employed for a major part of the year. If this under-employment could be tackled the expenditure under this head could be considerably lessened. The large expenditure on servants in Limbasi group, as compared with Matar group, is due to their larger holdings, the average holding in Limbasi group being 15 acres, as against the holdings in Matar group of 9 acres. Although Navagam average holding is only 8.9 acres, yet, as it is a paddy

cultivating area, the expenditure is naturally higher, because the processes of cultivation require more hands. The same reason accounts for the heavier percentage for labour in this last group as compared with the other two.

As the principal crops of Limbasi are cotton, wheat, gram, pulses and jowari the cost of seeds is much heavier than in the other two groups, where cotton is a minor crop.

As manure is nearly twice as expensive as in the other two groups, the heavier percentage of expenditure in Matar under this head needs hardly any further explanation.

The higher expenditure in respect of rent in Matar group is due to a larger percentage of cultivated lands being under lease. In Limbasi and Navagam groups only 4.7 and 4.2 per cent, respectively, of the cultivated area are under lease, while in Matar group, 11.9 percent is taken on lease.

We have already discussed family expenditures and compared them with the minimum budget drawn up by "the American Labour Bureau" while we were considering standard of living. The average income per family is shown earlier in this chapter to be Rs. 67. But we find that the average family expenditures amount to Rs. 292. Or in other words, the income is Rs. 14 per head and the expenditure is Rs. 59. This does not mean that the people

SCHEDULE VIII

THE YEAR'S BUDGET

Limbasi Group—Table I

The year's working

Village	Income	Loss	Annual domestic expenditure	Land revenue	Interest	Total expenditure	Deficit
	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
Limbasi	5157– 8		21623.15	2053– 1	1242– 5	24919– 5	19761.13
Vasai	994– 4		8287.10	657– 2	403	9347– 12	8353– 8
Sayla	2134– 7		6902– 6	955– 5	247.12	8105– 7	5971
Asamli	2470.15		5867.11	133– 7	119	6120– 2	3649– 3
Palla		504– 3	6450.12	39– 1	170	6659.13	7164
Punaj	1093.12		7524– 9	432.10	226.12	8183.15	7090– 3
Kunjra	2055.12		2851– 1	64– 7	20	2935– 8	879.12
Adeva		220.15	7682– 8	884– 2	170	8736.10	8957– 7
Valotri	2001.13		6038.10	665.12	307	7011– 6	5009– 9
Moraj	2801– 9		8681.15	380.12	260– 8	9323– 3	6521.10
Chikhalia	3124– 8		5359.14	180– 7	182	5722– 5	2597.13
Pariaj	1148.15		2161– 1	169	82– 8	2412– 9	1263.10
Zichka		1924– 5	9503.11	678.14	273	10455– 9	12379.14
Khanpur		592– 4	9627	1400– 4	304– 8	11331.12	11924
Marala	436.13		6843.15	685– 3	109– 8	7638.10	7201.13
Tranja	4942.11		13527.11	1141– 2	431– 4	15100– 1	10157– 6
Bhalada	3887– 3		7616– 1	678.12	494	8788.13	4901.10
	32,250– 2	3,241.11	1,36,550– 6	11,199– 5	5,043– 1	1,52,792.12	1,23,784– 3

Real Net Income 29,008—7

Note: Opening and the Ending Balances in the villages of Limbasi group and a few of the Navagam group were not available.

Navagam Group—Table 2

Village	*Opening Balance*		*Year's Working*				
	In cash	In kind	Capital Receipts	Total	Income	Loss	Total Income
	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs as.
Navagan	393-	3318- 4		3711- 4	15877- 5		19588- 9
Pinglaj					2847- 5		2847- 5
Kathwada					817- 7		817- 7
Chanindra	201- 4	101-12	100	403		206- 7	196- 9
Dharoda	1330	1479-10		2809-10	2324- 9		5134- 3
Pansoli	62	2218- 4	254	2534- 4		332- 3	2202- 1
Gobhlaj	927	3061- 2		3988- 2		365-12	3622- 6
Bherai	894- 4	4365-10		5259-14		1654- 8	3605- 6
Dhathal	438-10	1249	294	1981-10		1161- 8	820- 2
Chitrasar	700	950	1760	3410		244- 1	3165-15
Vadala	- 8	935-12	144- 8	1080-12		101- 5	979- 7
Nayka	1122- 4	5712- 7	685	7519-11	8603- 9		16123- 4
Kanera	71-14	1143-10		1215- 8	1671- 5		2886-13
Radhu	747- 4	2385-13	930	4063- 1	2232- 4		6295- 5
Rasikpura	297- 5	521- 7	100	918-12	654-14		1573.10
Kaloli	958- 9	1554- 6	130	2642-15	2081.12		4724-11
Chandana	90- 4	955- 5	90	1135- 9	1643-11		2779- 4
Mahelaj	1464- 6	1357-15		2822- 5	1288-10		4110-15
Shetra		26- 8		26- 8	666- 7		692-15
Vavdi	17- 4	303	170	490- 4	192- 7		682-11
	9,715-12	31,639-13	4,657- 8	46,013- 1	40,901- 9	4,065-12	82,848-14

Real Net Income

36,835-13

Navagam Group — Table 2

Ending Balance

Annual Domestic expenditure Rs. as.	Interest Rs. as.	Large expenditures Rs. as.	In cash Rs. as.	In kind Rs. as.	Total expenditure Rs. as.	Deficits Rs. as.
22176-10		4769			26945-10	7357- 1
3524-15	225				3749-15	902-10
2707-15					2707-15	1890- 8
4867- 4	67	435	- 2	67- 8	5436-14	5240- 5
8078-13		900		1118- 4	10097- 1	4962-14
3836- 4	140	290		1711	5977- 4	3775- 3
9834-12	211		881	710	11636-12	8014- 6
7967		722		2626-11	11315-11	7710- 5
3857-14		985- 4	3- 4	126- 8	4972-14	4152-12
4620-13		1075- 8		588- 8	6284-13	3118.14
4458- 8	25	237- 8	19	352- 8	5092- 8	4113- 1
23468- 7	275	4109	295	4110-12	32258- 3	16134-15
6030-12		830		698- 1	7558-13	4672
14491-10	20	1648- 8	1140-12	20- 8	17321- 6	11026- 1
4386-13		616		50.15	5053.12	3480- 2
7409-11	8	611	203- 3	1173-11	9405- 9	4680-14
5889- 8		290	60	221	6460- 8	3681- 4
6304- 2		859- 8	98-8	313- 4	7575- 6	3464- 7
1080- 3	5	79- 8		7- 8	1172- 3	479- 4
2503- 8	72	115		53	2743- 8	2060-13
147,495- 6	1048	18,572-12	2,700-13	13,949-10	18,3766- 9	100917-11

Matar Group—Table 3

Opening Balance

Village	In cash Rs. as.	In kind Rs. as.	Capital Receipts Rs.	Total Rs. as.	Year's working Rs. as.	Total Income Rs. as.
Matar	1634–1	858	321	2813–1	1110–5	3923–6
Traj	1729			1729	1398-15	3127-15
Piparia	653-12		320	973-12	772–4	1746
Koshil	161-15			161-15	711	872-15
Machhial	50-12	530–8		581–4	60–3	641–7
Khadialapura	90	322–5	475	887–5	1215–7	2102-12
Wasna	876-10	1353-12	175	2405–6	1127–3	3532–9
Sokhda	1089–3	1449–6		2538–9	1669	4207–9
Undhela	898–6	597	35	1530–6	823–6	2353-12
Vansar	135	404-10		539-10	405-14	945–8
Sandhana	763–1			763–1	1538	2301–1
Radhwanaj	92–8	779–1	240	1111–9	1583–6	2694-15
Antroli	79–8	498-14	105	683–6	1084-13	1768–3
Khandhli	79–4	858-12	320	1258	939–5	2197–5
Lawal	56-11	444-14	102	603–9	127-13	731–6
Maliataj	8-12	910-12	85	1004–8	Loss 563–8	441
Alindra	1857–3	1141-12		2998-15	1495	4493-15
	6947-14	10149-10	2178	22583–4	16061-14	38081-10
	3307-12					

Loss 563–8

Real net Income 15498–6

Matar Group — Table 3

Annual Domestic			*Ending Balance*			
Expenditure Rs. as.	Interest Rs.	Large Expenses Rs. as.	In cash Rs. as.	In kind Rs. as.	Total Expenditure Rs. as.	Deficits Rs. as.
6480	60	91	288	409-12	7328-12	3405-6
5779-6	34		330-8	411-13	6555-11	3427.12
2801		320	93	216-4	3430-4	1684-4
1743				154-8	1897-8	1024-9
3632-6			462-8	61	4155-14	3514-7
3894-10	120	....	1533-1	....	5547-11	3444-15
6037-12		1315	4	515-13	7872-9	4340
5425-6	38	468	21-6	1077-9	7030-5	2822.12
3253-12		776-4		408-12	4438-12	2085
3067-12		257		10	3334-12	2389-4
7149-4	5		406	199-4	7759-8	5458-7
4353-10	8	790	7-12	206	5365-6	2670-7
2537		345		59-8	2941-8	1173-5
4019-2		205-14		180-4	4405-4	2207.15
3254-14	5	291	1-4	19-4	3571-6	2840
2512-4		2193-8		128	4833-12	4392-12
5579-11			1126-12	155-12	6862-3	2368-4
71520-13	270	7052-10	2741-2	4213-7	87331-1	49249-7
			1533-1			

are extravagant as these averages do not include any social or other extraordinary expenditures, but merely the cost of running the household. It also shows that while the subsistence level is estimated at Rs. 120 per head the average of actuals amounts to Rs. 59 per head; that is, the people are living on 50 per cent starvation. Even then there is a per capita deficit of Rs. 45. The natural consequence of such family budgets is the crushing burden of indebtedness as described in a subsequent chapter.

The Net Result

The following table shows the financial position of the families at the end of the year, after charging their meagre family expenditures.

		Families	Percent
With deficit of	1 to 100	239	19.7
,, ,, ,,	101 to 200	314	25.8
,, ,, ,,	201 to 300	203	16.7
,, ,, ,,	301 to 500	228	18.8
,, ,, ,,	501 to 1000	134	11.
Over ,, ,,	1000	16	1.3
		1134	93.3
Families able to make both ends meet		26	2.2
with surplus from	1 to 100	43	3.5
,, ,, ,,	101 to 500	10	.8
,, ,, ,,	501 to 1000	2	.2
		1215	100.

This means that only 6.7 per cent of the families are able to pay their way through, and barely I per cent of the families have anything over Rs. 100 left over. This condition of affairs well explains why only about 5 per cent of the families are free from the clutches of the government, the Cooperative Societies and the Usurer.

Capital and Extraordinary Expenditures

It will be interesting to note the actual amount spent on capital and exra-ordinary items during the last ten years by the families we have surveyed. As these expenditures are incurred only periodically the income of the farmer should allow of an annual deduction for these necessary social expenditures. Therefore, we have taken the average per year of the families which have incurred such expenditures and the details are as follows:

	No. of Families	Average
Marriages	706	Rs. 71
Death	451	,, 30
Ornaments	56	,, 28
House	699	,, 42
Land	268	,, 40
Agriculture	85	,, 38
Miscellaneous	74	,, 35
No. of Families concerned in the above expenditure	1023	,, 111

It will be seen that the much made of expenditure on marriage is only Rs. 71 per year and the average of all the extraordinary and capital expenditure works out to Rs. 111 per family per annum. Taking the present economic state of things even this amount of capital and extraordinary expenditures is out of proportion to their annual income of about Rs. 67 per family. Apart from the first two items, the other expenditures are either for improvements or investments; therefore, no objection can be taken against these. As the question of social expenditures is dealt with fully while considering it as a contributory cause of indebtedness in the chapter relating to that subject, it is not necessary for us to dwell on this point at any length here.

CHAPTER VII

LAND REVENUE

"*A king should milk his kingdom like a bee collecting honey from plants. He should act like the cowherd who takes milk from her udders and without starving the calf.*"

Mahabharata, Shanti, 88—4.

"*Take care, oh king, that the traders in your kingdom, who purchase articles for purposes of trade at prices high and low, and who while itenerating, have to sleep or take rest in forests and inaccessible regions, may not suffer from the imposition of heavy taxes.*

"*Let not the agriculturists in your kingdom leave it through oppression; they, who bear burden of the king, support the other residents also of the kingdom.*"

Mahabharata, Shanti, 89—23 & 24

"*No tax should be levied without determining the outturn and the amount of*

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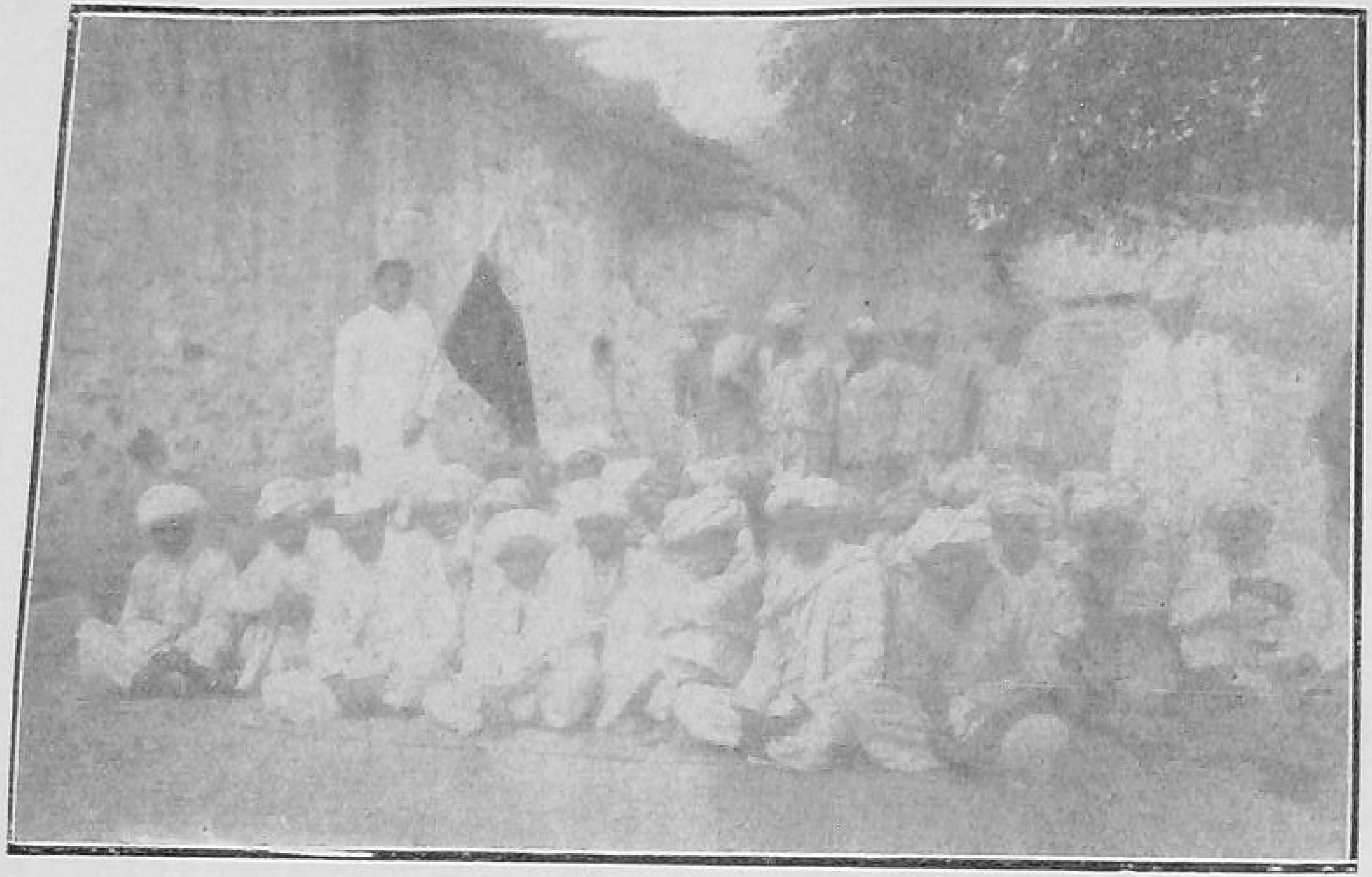

A GROUP OF FARMERS OF DHARODA

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labour necessary for its production. Nobody would work without sufficient cause.

"The king should, after thought, impose taxes in such a way that he and the person who labours to produce the article taxed may both partake of the outturn.

"The king should not, by his greediness, destroy his own foundations as well as those of others."

Mahabharata, Shanti, 87—16, 17 & 19.

Systems of Land Tenures

Zamindari System

At the present time, the farmers are taxed under the provision of the Land Revenue Code. Land Tenures in India could be broadly divided into the Zamindari System and the Ryotwari System. The former was brought into use, mainly in Bengal and some parts of Madras, by Lord Cornwallis under his Permanent Revenue Settlement scheme. In this system, the Zamindar is made directly responsible to the crown for a fixed amount of revenue and is left free to reimburse himself from the occupants by way of rents. As land values have increased with time, rents have also gone up, while the amount to be paid to the government as revenue has been constant. This places the Zamindar in a position of vantage as compared with the government and the occupant.

Ryotwari System

Under the Ryotwari System, which is the tenure prevalent in Matar Taluka, the farmer holds the land directly subject to payment of certain dues to the government. The amount to be paid is settled periodically (usually every thirty years) by the executives of the Revenue Department. This Settlement fixes the revenue payable, taking into consideration the quality of land, locality etc. and determines the actual amount to be paid annually, modified, however, by the Annawari Valuation, arrived at by the estimated conditions of the crops in that year. In practice, this system of valuation lays itself open to undue exactions from the executive officers, as the valuations is made by petty officials in conjunction with two persons from the village chosen by such officials. If strong Panchayats could be organised in villages, and the village, as a whole, could be assessed to Annawari Valuation as a unit, leaving it to the Panchayat to distribute the amount of the revenue assessed on the village according to the conditions of the crops of each farmer, the injustice in the present system could be greatly rectified. If such valuation falls below 6 as. of the standard crop, then the revenue for that year is half suspended, while, if the valuation falls below 4 as. it is fully suspended and if this suspension

is continued for three years then a remission is granted. In some parts, the ordinary terms of tenure under this system have been modified by recent legislation and these are called restricted tenures, under which the land cannot be sold, mortgaged or leased without the permission of the Collector.

Inami System

In this taluka, in a few instances, we came across what are known as Inami Tenures. The holders, Inamdars, were persons on whom and on their heirs the right to enjoy in *inam* the revenues of the village was conferred orginally as a reward for services rendered.

Payment of Land Revenue

Due Dates

Farmers have to pay their dues usually in two instalments, the due dates being fixed by the authorities, who are expected to take into consideration the convenience of the farmer, looking to the time of the realisation of his products. In the Limbasi group of villages, only Pariaj, out of 17 villages, has said that the dates are convenient, the other villages suggest the postponment of the due dates by one or two months, as the present dates do not give them enough time to market their products and obtain the necessary cash. As things are now, most

of them are obliged to borrow the money from the Sowcar to pay the revenue and later, when they do sell their crops, there is no incentive to repay the Sowcar and the money is utilised for personal purposes. In this way, these earlier due dates for land revenue help increase the indebtedness of the farmers.

As regards Navagam group, we find that in most of the villages where paddy is the main crop, the people find the January instalment convenient, as they are able to meet it out of the proceeds from the sale of rice. But, even among such villages, some are of opinion that the date of the first instalment should be shifted to about the middle of February. In other villages where tobacco, cotton and wheat are largely grown they feel the need for the postponement of the first instalment even more keenly, and suggest March as a more convenient month. In this group also, the farmers find it necessary to borrow to pay the land revenue on this early date.

In the Matar group, out of 17 villages only 5, find January and March instalments convenient. All the others suggest February and April as being most suitable.

We realise the anxiety of the Government to safeguard its interest by placing the due dates of instatments as close as may be to the harvest time, but we feel the convenience and

the interest of the farmers should be the paramount consideration with a Government that seeks the welfare of the people. These early dates lead to forced realisation of the product at the harvest time, when the prices are at the lowest and, as we have already noted, it also indirectly encourages reckless borrowing.

Punctuality of Payment

Inspite of great hardships and inconvenience the farmers as a rule pay up the revenue promptly. In the past five years, out of 1,013 farmers examined only 29 have suffered coercive process for non-payment. Out of 915 families 570 had to get into debt to pay their land revenue; that is, 60% of the farmers we have examined were unable to pay the land revenue when demanded by the Government without resorting to the money-lender. This clearly indicates that the instalments have not been fixed with a view to facilitating payment out of the proceeds of their produce. It may be possible to avoid this by taking payment of tax in kind, although this will throw an additional burden on the administration. In Limbasi group, the assessment on Jarayat lands varies from Re. 1 as. 10 to Rs. 3 a. 1 and on Kyari land from Re. 1 as. 12 to Rs. 5 as. 2 per acre; and in Navagam group, in the former case from Rs. 2 as. 2 to

Rs. 3 as. 12 and in the latter case from Rs. 3 as. 5 to Rs. 11 as. 3 while in Matar, the variations in the first case are from Rs. 3 to Rs. 4 as. 4 and in the second from Rs. 3 as. 15 to Rs. 5 as. 8.

Confiscation of Private Property

This promptness in payment of the revenue referred to above indicates either their honesty or cowardice, as we shall see, neither their income nor their standard of living will warrant any payment. A tax has to be raised from income and not out of capital, unless, it be definitely a capital levy, which is only a form of limited confiscation of private property. When a tax is levied on people in such amounts, that it is out of their capacity to pay, it is, in effect, confiscation of capital. A tax, when raised, has to be returned to the people in way of service, otherwise, it leads to poverty, as mere taxation without any compensation reduces the national income.

Extortionate

We have shown in our chapter on Finances that our farmers are living much below what is required to sustain animal life. Under these conditions to charge land revenue in order to maintain the expensive Government, is an exaction and an extortion. And if the farmer resorts to the money-lender, it is not because

of his extravagance, but because he has to keep his body and soul together.

Land Revenue—Capital Levy

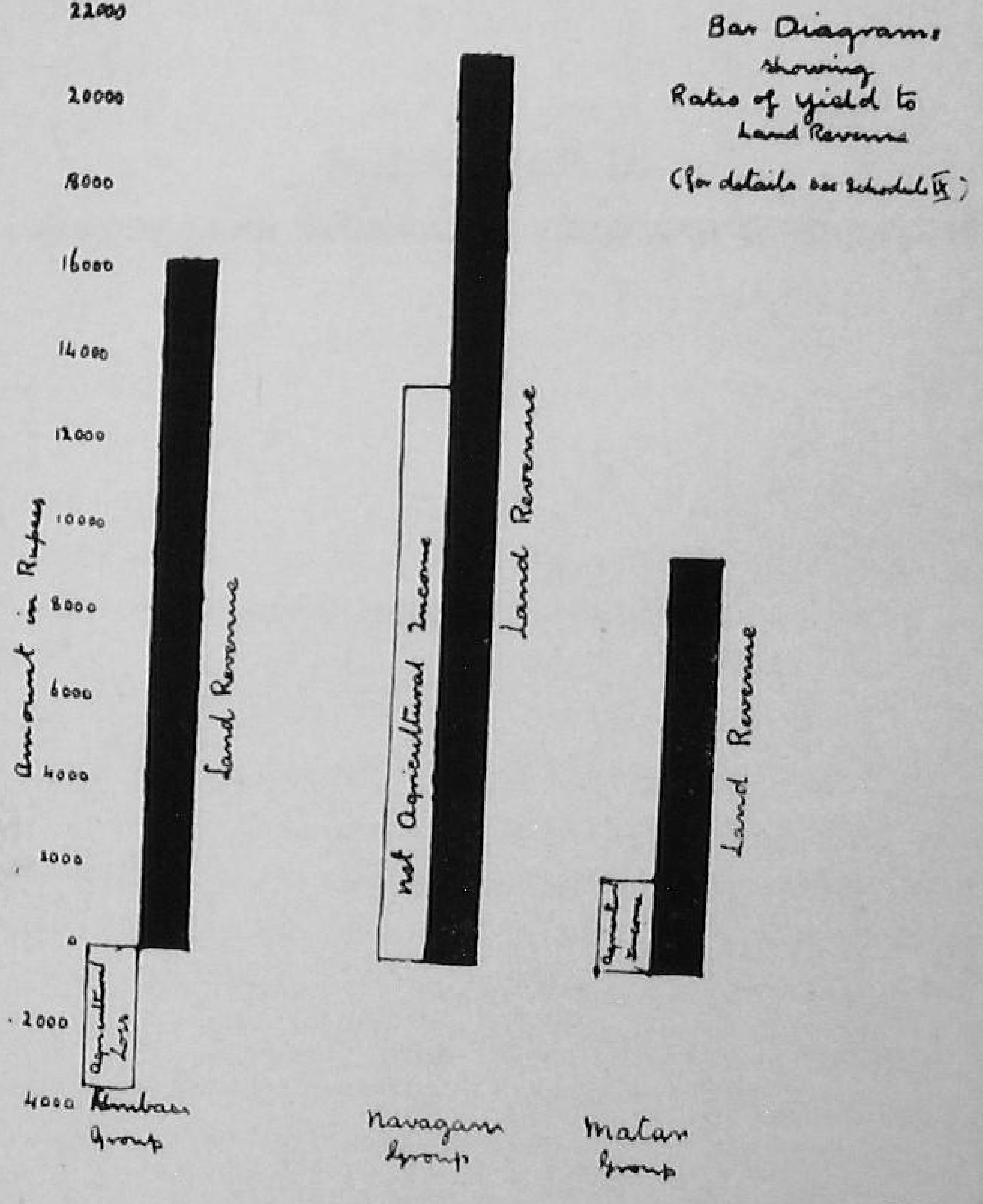
Our contention, that the land revenue, as at present administered, is a capital levy is illustrated by the following fact. The column headed "Average Prices of Land" in Schedule no. IX when compared with the next column shows the high percentage of land revenue to the capital value. In Matar, we examined 257 cases of sale transfers of land. The average price per acre is Rs. 110, and the average assessment per acre is Rs. 4 as. 4. This means, that the peasant is called upon to pay 3.9 percent of the capital value of his property by way of annual tax. In Traj, where we examined 239 sale transfers of land, the average price per acre is Rs. 83, the average assessment being Rs. 3 as. 8 per acre, which works out to 4.2 per cent of the capital value. These are by no means extreme cases. As instances of such cases, we refer to Pinglaj and Pansoli, where the land revenue works out to 33.2 percent and 27 per cent respectively on the capital value of land. This means a man, who invests Rs. 100 in Matar, has to pay out of the interest he gets, say about Rs. 6, nearly Rs. 4 to the Government as land tax. That is, it is equivalent to an income tax of about 66 per cent or 10 as. 6 pies, in

the rupee without granting any abatement or allowances, while, in the case of Pansoli and Pinglaj many times the income has to be paid over and in effect it amounts to an annual capital levy of a third of the property. No peasantry, however, prosperous can stand this extortion year in and year out.

Ratio of Revenue to Yield

Apart from the high ratio that land revenue bears to the capital value of the land, the yield per acre is, in many cases, hardly sufficient to meet the revenue. In Limbasi 71.4 per cent of the net yield has to be paid over as land revenue. And in Chikhalia, it amounts to 80.3 per cent of the yield. In Piparia, 100 percent and in Rudhvanaj, 80.9 per cent of the net produce has to be paid over. These villages again do not represent the extreme. In Valotri, while the average net yield per acre is Re. 1 as. 5 the average assessment is Rs. 2 as. 5 which represents an assessment of 176.5 per cent on the net yield. Similarly in Traj, 215.4 per cent and in Khadialpura 203.1 per cent and in Undela 194.3 per cent have to be paid over. That is, in simple language, the farmer has to pay to the government twice what he gets from his fields. This is without allowing for his living expenses. The farmer can only do this by borrowing. Thus the money-lender and the usurer become

VII



Bar Diagrams
showing
Ratio of yield to
Land Revenue
(for details see schedule IX)
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
4000
Amount in Rupees
Land Revenue
Agricultural Loss
Net Agricultural Income
Land Revenue
Land Revenue
Navagam
Group
Matar
Group
Group

SCHEDULE IX

RATIO OF LAND REVENUE TO YIELD AND LAND VALUES

Limbasi Group—Table 1

Village	Total Cultivated acres (excluding fallow)	Average Gross Income Rs. as.	Net Income Rs. as.	Loss Rs. as.	Average net Yield Rs. as.	Average assessment Rs. as.
Limbasi	906.5	20–7	1999-15		2–3	1–9
Vasai	279.2	12–1		1639–1		2.11
Sayla	428.4	11-15	288–7		-11	2–5
Asamli	251.2	16-13	802-12		3–3	1–3
Palla	290.6	9–7		1925–5		2–7
Punaj	431.25	11-12		742-15		2–6
Kunjra	213.75	13.12	1048–7		4-14	2–5
Adeva	501	11-14		1433-12		2–1
Valotri	431.9	12-13	570-12		1–5	2–5
Moraj	262.5	14-12		237-14		2.13
Chikhalia	258.1	18–3	989–2		3-13	3–1
Pariaj	57.5	14.13		4–7		2.10
Zichka	714	9-13		3383–1		3–1
Khanpur	575	9-15		2003–8		3–5
Marala	310	13–4		568–5		2–9
Tranja	601.25	17-15	2269–2		3-12	2–8
Bhalada	275	14-10	668-11		2–7	2–7
	6,787-15	13-15	8,637–4	11,938–4		2–7

Limbasi Group — Table 1

Land Values

Percentage On Gross Yield	Percentage on net Yield	Owned Land acres (including fallow)	Land Revenue Rs. as.	Cases examined	Average price of Land Rs.	Percentage of Assessment on price of Land
7.6	71.4	938.7	1466-13	152	100	1.6
22.3		191.2	514- 8	38	116	2.3
19.4	336.4	329.4	761- 1	11	49	4.7
7.1	37.3	302.5	359- 2	9	57	2.1
25.8		252.5	815- 8	Not	available	
20.2		565	1341-14	25	54	4.4
16.8	47.4	361.2	835- 6	8	27	8.6
17.4		582.5	1201- 6	9	34	6.1
18	176.5	376.2	870- 1	5	63	3.7
19.1		209.4	589	157	85	3.3
17.2	80.3	261.2	800	5	74	4.1
17.7		46.3	121- 7	90	130	2
31.2		725	2220	1	29	10.6
33.3		450	1490-10	35	114	3.1
19.3		347.3	890- 8	14	74	3.5
14	66.6	566.9	1417- 3	104	80	3.1
16.7	100	279.4	634- 2	182	88	2.8
19		6784.7	16,328- 9	845	73	4.1

Navagam Group—Table 2

Village	Total cultivated acres (excluding fallow	Average Gross Income Rs. as.	Net Income Rs. as.	Loss Rs. as.	Average net Yield Rs. as.	Average assessment Rs. as.
Navagam	509	74-14	14046-11		27-10	8
Pinglaj	67.5	69-13	1963- 9		29- 1	8- 5
Kathwada	106.9	7- 2		450-14		6- 1
Chanindra	197.7	18- 7		956- 7		7-10
Dharoda	292.8	14- 2		726- 5		2-13
Pansoli	131.4	28-14		663-15		10
Gobhlaj	184.1	45- 6		1553- 3		3- 9
Bherai	214.6	21- 7		2379-14		7-10
Dathal	112.8	6		2365-10		6- 9
Chitrasar	149.7	11- 5		1105- 9		3- 5
Vadala	94.4	15- 1		1055- 2		4
Nayka	603.9	36- 7	6536-14		10-12	4-15
Kanera	138,7	26- 1	447- 9		3- 4	4-14
Radhu	479.4	22- 4	644-12		1- 5	3- 2
Rasikpura	148.3	15- 1		282-13		3-13
Kaloli	221.4	21- 3		534- 8		4- 8
Chandana	277.25	15-13	869-14		3- 2	3- 5
Mahelaj	217.7	21-10	1170- 6		5- 6	3- 4
Shetra	30	20- 6	206- 3		6-14	4- 1
Vavdi	96.9	16-12		80- 5		3- 5
	4274.45	29- 6	25885-14	12154- 9	8- 3	5- 2

Real net Income
Rs. 13731- 5

avagam Group—Table 2

Land Values

Percentage on gross Yield	Percentage on net Yield	Owned Land acres (including fallow)	Land Revenue Rs. as.	Cases examined	Average price of land Rs.	Percentage of assessment on price of land
10.8	28.9	495.4	3965-0	39	131	6.1
11.9	28.6	49.4	410-7	13	25	33.2
85.1		138.8	841-3	27	69	8.8
41.7		168	1282	30	89	8.6
19.9		271.2	762-12	10	114	2.5
34.6		131.2	1312-8	11	37	27
7.9		277.5	988-9	61	92	29.7
35.6		250	1906-4	12	155	4.9
156.2		89.4	586-8	18	105	6.2
29.3		150	496-14	21	31	10.7
26.5		126.9	507-8	3	250	1.6
13.6	41.8	685	3382-3	50	61	8.1
18.7	150.0	150	731-4	10	38	12.8
14	258.1	430	1343-12	147	67	4.7
25.3		108.1	412-4	4	55	6.9
21.2		221.9	998-7	84	63	7.1
20.9	106	137.5	455-8	47	60	5.5
15	60.5	232.5	755-10	100	43	7.6
19.9	59.1	47.5	201-14	15	33	12.3
19.8		42.5	140-12	6	51	6.5
17.5	160.8	4202.8	21481-3	708	65	7.9

Matar Group—Table 3

Village	Total cultivated acres (excluding fallow)	Averag gross income	Net Income	Loss	Average net yield	Average assessment per acre
		Rs, as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
Matar	127.8	19-4		319-13		4-4
Traj.	260.3	20-2	422-7		1-10	3-8
Piparia	108.9	18-1	353-4		3. 4	3-4
Koshial	51.2	26	504		9-13	4-2
Machhial	145.6	11-9		224-15		3.13
Khadialpura	138.4	19.14	289-6		2-1	4-3
Vasaua	288.9	23-12		353-5		4-1
Sokhada	177.3	26-10	591-15		5-5	4-3
Undhela	111.1	29-9	240-2		2-3	4-4
Vansar	78.9	17-10		133-13		3-8
Sandhana	168	16-15		261-6		4-6
Radhwanaj	137.7	24.14	762-15		5-9	4-8
Antroli	48.4	26-5	478-14		9-14	4-2
Khandhali	91.2	26-3	595-4		6-8	3-8
Lawal	92.5	18-2		260-2		4-4
Maliataj	97.3	20-5		586-12		4-4
Alindra	163	31-7	72-8		-7	4-4
	2286.5	22-2	4310.11	2140-2	-15	4

Real net Income
Rs. 2170-9

Matar Group—Table 3

Land Values

Percentage on gross yield	Percentage on net yield	Owned land acres (including fallow)	Land Revenue	Cases Examined	Average price of land	Percentage of assessment on price of land
			Rs. as.		Rs. as.	
22.1		148	629	257	110	3.9
17.4	215.4	225	787–8	239	83	4,2
18.0	100.	82.8	267–3	89	59	5.5
15.9	42	45.3	186-10	81	120	3.4
33		95.5	350–7	101	98	3.9
21.1	203.1	80.6	335-10	27	142	2.9
17.9		314.4	1276	61	79	5.1
15.7	126.4	161.7	674–15	119	84	5
14.4	194.3	105.2	446–7	268	153	2.8
19.8		73.9	256–5	104	110	3.2
25.8		175.5	750–5	214	114	3.8
18.1	80.9	127.5	573-12	103	108	4.2
15.7	41.8	43.6	1664-13	63	73	5.7
13.4	53.8	118.2	413-11	79	217	1.6
.4		52.2	183–9	76	188	2.3
20.9		128.1	544-10	115	176	2.4
13.5	971.4	111.5	473-14	78	228	1.9
18	426.7	2089	9814-11	2074	113	3.5

important allies of the Government. Even the cases cited above do not represent the worst samples, as more than half the numbers of the villages we have examined disclose a net loss on the working and, therefore, the land revenue cannot even be expressed as a percentage of of the 'net yield' in these cases.

Remissions and Suspensions

Even where remissions and suspensions are allowed, in cases of dire distress, it does not operate as a relief to the peasants, as in some cases, they have still to borrow to pay the partial assessment. In 1930, the Government announced that in the case of 27 villages of Matar Taluka, they were willing to take only half the assessment, and in the case of 24 villages, the full assessment was to be taken. We have examined 80 families in all from five of the villages under half assesment, Dhathal Kathwada, Matar, Machhial and Vavdi. The result shows a loss on the agricultural working itself before charging any interest or land revenue. These families have nothing whatever to live on and yet they have to pay half land revenue. 58 families were examined in the four villages, Antroli, Chandana, Khandali and Shetra. These showed a small gross profit of Rs. 2,150 on the working and the half revenue those families have to pay would be Rs. 939

leaving a balance of Rs. 1,211, which averages about Rs. 21 per family to live on for the year.

Out of 24 villages, from which the full amount was demanded, we examined 13. Here again, 105 families in the six villages Bherai, Gobhlaj, Lawal, Maliataj, Pansoli and Vadala show no gross profit at all, but have to pay the full assessment. And 160 families in the six villages of Alindra, Kanera, Nayka, Pinglaj, Radhwanaj and Undhala show gross profit of Rs. 10,201 and these families have to pay about Rs. 7,000 as land revenue, which will leave, on an average, about Rs. 20 per family to maintain itself for the whole year.

The best results we have seen so far are in Navagam, where the 50 families examined, showed a gross profit of Rs. 14,046 and deducting the revenue due from them of Rs. 4,340 we have a gross income per family of Rs. 194 per year. Will a businessman feel justice has been done to him if he were taxed on his gross business income of a little under Rs. 200 per year?

The year under consideration has been rather an unfortunate one in Matar Taluka. It was also preceded by calamities, such as floods and frost, and hence, we are not surprised to find the income of the people at a very low level. Yet, at such a time, when most governments would come to the aid of the people, we notice

VIII

A GROUP OF FARMERS OF KANERA

p. 89

that 1,215 families belonging to 54 villages have deficits of Rs. 2,75,540., yet the land revenue due from those people for this particular year amounts to about Rs. 47,000. It is not amazing, therefore, to find that 427 families can only pay land revenue by borrowing. Although these conditions were exceptional in this year, we have also taken into consideration the magnanimous and generous suspensions granted by the government because of such misfortunes. If such exactions are taken from the people, year after year, thus bringing about a steady and slow confiscation of property, can we wonder at the wretched condition of the people of this Taluka ?

The Remedy

The only way we can satisfactorily deal with this danger of excessive taxation amounting to capital levy would be to make sure that the tax is paid out of net income. This can be done by giving an option to the farmers of electing to be assessed to income tax instead of being subject to land revenue, as is done in England. Incidentally, this will also encourage the farmers to keep proper accounts. This will mean guaranteeing to the farmer a certain amount as subsistence allowance. Naturally, such a course will entail, a fall in the revenues of the Government, which will have to be either made

up from other sources or met by reduction in expenditures. It may be out of place here to go into the ways and means of reducing government expenses. All we need to state is that the revenues drawn from the villages, at least by way of direct taxation, should be spent for the benefit of the villages themselves in expenditures such as elementary schools, sanitation, medical aid, etc. We are justified in demanding a reduction in any government expenditures, such as salaries to administrative officers, military etc. which should be paid for out of the funds drawn from the villages by way of indirect taxation. To cite only one or two cases to make our point clear, if we take the village of Punaj or Kunjara either of which pays by way of revenue over Rs. 1,500 per year in return for which they get absolutely no service other than the doubtful benefit arising out of military protection. They have no schools, no adequate supply of water, no post office, no roads, no railway and not even a well-built *chora*.

The function of the present Government begins and ends with the duties implied in the designation of the highest district officer 'the Collector'. This title was given by Warren Hastings, when he appointed officers to collect the revenues of Behar, Bengal, and Orissa and to this day, the Collector exists to collect the revenue but does little else.

No civilised government will tax such people living on the border line of starvation. The only excuse under which this is done in India is that land revenue is not a tax but a rent and that a farmer has to pay for the use of the land to the superior landlord, namely, the Government.

Tax or Rack Rent?

This is not the place to enter into a lengthy discussion as to whether land revenue is rent or a tax. The idea of considering land revenue as a rent is a convenient one for the Government, as it ignores the taxable capacity of the people. Even if such a position is taken up, we would ask what is a Government? A Government has no existence apart from the people, much less can it set itself up as a landlord, and if it does, it can only do so as a trustee for the welfare of the people and has no justification whatever for being an absentee landlord, which is what the attitude of the present Government makes it. As Bastable puts it, Indian Land Revenue receipts more nearly resemble the dues of the feudal lords. Land revenue, therefore, is only one other form of raising funds for the Government, which has really no claim to hold land apart from the people. Hence, we look upon land revenue as a tax, rather than as a payment out of

economic rent. Under conditions which do not allow of free movements from one occupation to another, it is absurd to talk of economic rent. In India, a farmer is a farmer and pays the land revenue, not because, he finds it to be the best way of occupying his time, as compared with other methods, but because he has no alternative other than starvation. Therefore, arguments in favour of economic rent, however attractive to theorists, have no practical bases in India in connection with the land revenue question. In India, the attraction for landed property is great, irrespective of the yield, as the people consider that certain status attaches to the holding of land. In addition to this, if the plot of ground had been in the possession of the present owner's ancestors, there is sentiment, attached to it. These attractions for possessing landed property are further reasons why land revenue cannot be regarded as economic rent. Mr. Ramsay Macdonald says,[1] "In theory, the tax is a rent; in practice, a rent should be fixed on an open market by competition between competitors of a decent standard of living and in relation to the amount, above that standard, land competed for will yield; in other words, it should be assessed with that standard as its first charge. The habit of the Government . . . has been to exact from the cultivators the utter

1. J. R. MacDonald's *The Government of India* P. 140.

most farthing, over and above a standard of life which has been much too low. . . . Over assessment and the rigidity of the payments therefore, have undoubtedly tended to impoverish the people and a system of revenue collection thoroughly sound in theory, and meeting the requirements of unassailable economic doctrine, has, in practice, become a grievous method of oppression and the subject of formidable attack. The Government has only illustrated the dictum that the owner of rents tends to become the possessor of rack rents, and in this respect, India shows results remarkably similar to those of Ireland. The power to extract rent has been used in both countries to keep down standard of living, and the ryot and the cottar have been doomed to illustrate how economic law is no respector of persons. The real point of attack upon the levy of the land revenue is not that it exists, but that it is more than a fair rent and that it has been levied in such a way as to prevent a steady heightening of the standards of life which would have tended to absorb a part of the increasing productivity into the wages and salaries of cultivators."[1] "Taxation can be imposed wisely only upon the difference between the cost of decent living and income and that margin in India does not exist for nine tenths of the population. The official apologists keep

1. J. R. MacDonald's *The Government of India* P. 149

reminding us of the low taxation of India, but that has nothing to do with the matter. The question is what is the taxable capacity of the Indian people, and as regards the great mass the answer must be "practically nil.""

Conclusion

These conditions indicate that land revenue considered (*a*) as state's share of the surplus of the budget; (*b*) or as payment out of the return on capital invested. or (*c*) as percentage of net yield per acre or (*d*) as payment out of net income from land, is an inequitable charge on the peasantry, and out of all proportion to their ability to pay.

The land revenue code as it stands today is an ordinance of the worst type giving unlimited power into the hands of the executives. It makes the administrative officer a tyrant even when he acts within the law. The provisions of the precautionary methods to be adopted prescribed in the code bring the farmer to the level of an undischarged bankrupt and it leaves executives power to deal with his property much in the same way as an Official Receiver might. It leaves no room for self-respect nor does it engender goodwill towards the Government and since the practice of using junior officers as settlement officers began, it has led to unconscionable increases in the

assessment. In olden days, expert senior officers who had passed years in settlement work and with whom their future career did not loom large were appointed settlement officers. These men proved to be too independent of the revenue department.

If, the system of assessment and collection of land revenue in other parts of India is any thing like what it is in Matar Taluka, it is high time that the administration of this department should be completely remoulded, and the Land Revenue Code effaced from the Statute Book.

CHAPTER VIII

INDEBTEDNESS

Forms of Credit facilities

Owing to the nature of their occupation agriculturists everywhere are always in need of loans or credit facilities. Broadly speaking these needs could be supplied by the following three forms of loans.

I. *Seasonal Loans*

This is mainly necessary for agricultural operations such as labour charges, purchase of seed, manure etc.

II. *Short Term Loans*

This is usually resorted to for purchase of Bullocks, implements etc. the benefit from which could be spread over 4 or 5 years.

III. *Long Term Loans*

When permanent improvements, such as sinking wells, building houses, improving the fields by levelling, drainage etc. have to be undertaken loans with a longer term are needed.

SCHEDULE X

LOANS FROM MONEY LENDER, CO-OPERATIVE SOCIETY, GOVERNMENT, SINDHIS ETC.

DEVELOPMENT COMMISSIONER
8 FEB 1947
FOOD DEPARTMENT

Table 1—Limbasi Group

	Money-lender		Cooperative Societies		Government	
Village	Families	Rs.	Families	Rs.	Families	Rs.
Limbasi	40	39,657	13	3,929	27	4,156
Vasai	33	13,852	18	2,377	21	1,750
Sayla	33	18,193	6	2,159	14	1,425
Asamli	16	4,838			12	1,077
Palla	21	9,880			19	4,456
Punaj	35	20,852	24	3,939	33	3,772
Kunjra	11	9,585	6	1,465	9	1,448
Adeva	17	11,593			15	2,532
Valotri	16	13,661	6	553	6	505
Moraj	25	12,125			16	2,710
Chikhalia	15	17,337			10	1,987
Pariaj	9	4,333	3	140	7	809
Zichka	25	27,314			7	1,743
Khanpur	27	30,218			8	1,413
Marala	19	11,525			7	599
Tranja	42	28,789	12	1,794	27	3,836
Bhalada	31	8,820			22	2,365
	415	282572	88	16,356	260	36,583

Indebtedness

Revenue Unpaid Families	Rs.	*Sindhi* Families	Rs.	*Without Interest* Families	Rs.	Total Rs.	Secured Rs.	Unsecured Rs
				9	5,988	53,730	10,185	43,545
				5	427	18,406	6,234	12,172
		2	140	3	700	22,617	5,707	16,910
		1	40	3	1,155	7,110	1,077	6,033
		2	275	3	625	15,236	4,456	10,780
				1	3,500	3,500		3,500
		11	764	2	250	29,577	7,761	21,816
				2	107	12,605	5,013	7,592
		5	481	1	107	14,713	2,532	12,181
		3	640			15,359	1,058	14,301
		2	147	8	2,559	17,541	4,211	13,330
		2	120	2	652	20,096	3,778	16,318
				1	27	5,309	1,649	3,660
8	419	2	602	5	1,200	31,278	2,516	28,762
					1,450	33,081	2,841	30,240
				2	230	12,354	2,510	9,844
						34,419	6,778	27,641
		4	179	1	25	11,389	4,985	6,404
8	419	34	3388	50	15,502	354820	73,291	281529
				1	3500	3,500		3500

Indebtedness

Averages of Debt

Per indebted family Rs.	Per family Rs.	Per cultivated acre Rs.	Total Families Examined	Families without Debt	Total Families in Debt
1,279	1,054	59	51	9	42
558	541	66	34	1	33
685	685	53	33		33
418	323	28	22	5	17
693	662	52	23	1	22
822	822	69	36		36
970	970	60	13		13
736	640	29	23	3	20
960	904	33	17	1	16
702	650	67	27	2	25
1,256	1,256	78	16		16
531	531	92	10		10
1,251	1,158	44	27	2	25
1,141	1,067	58	31	2	29
618	515	40	24	4	20
782	748	57	46	2	44
367	356	41	32	1	31
821	763	56	465	33	432

Indebtedness

Averages of Debt: Per indebted family Rs.	Per family Rs.	Per cultivated acre Rs.	Total Families Examined	Families without Debt	Total Families in Debt	Extent of Indebtedness: 1 to 25	26 to 50	51 to 100	101 to 200	201 to 300	301 to 300	501 to 1000	1001 to 1500	1501 to 2000	2001 to 3000	Above 3000
1,279	1,054	59	51	9	42		1	1	1	3	10	12	5	3	3	3
558	541	66	34	1	33			3	5	2	9	9	3	2		
685	685	53	33		33		1	2	4	2	7	10	3	2	2	
418	323	28	22	5	17		1		2	4	5	5				
693	662	52	23	1	22		1	1	2	1	3	8	3	1	1	1
822	822	69	36		36		1		4	4	6	12	6		2	1
970	970	60	13		13			1	1		1	7	1		2	
736	640	29	23	3	20	1	1		5		2	5	4	1	1	
960	904	33	17	1	16			1			3	7	3		2	
702	650	67	27	2	25			2	2	4	5	7	2	1	2	
1,256	1,256	78	16		16						5	3	2	2	4	
531	531	92	10		10		1	1	1	2	2	2			1	
1,251	1,158	44	27	2	25					3	3	8	3	4	2	2
1,141	1,067	58	31	2	29				1	1	1	16	3	2	4	1
618	515	40	24	4	20		1		5	2	3	6	2		1	
782	748	57	46	2	44	1		1	2	2	10	18	5	3	2	
367	356	41	32	1	31			1	6	3	7	9	4		1	
821	763	56	465	33	432	2	8	14	41	33	82	144	49	21	30	8

Table 2—Navagam Group

Village	*Money-lender* Families	*Money-lender* Rs.	*Cooperative Societies* Families	*Cooperative Societies* Rs.	*Government* Families	*Government* Rs.
Navagam	41	37,182	2	45	20	4,033
Pinglaj	12	9,998	1	60	6	546
Kathwad	13	7,754	2	160	9	1,361
Chanidra	16	12,397	3	456	9	1,127
Dharoda	30	10,994	1	150	22	1,422
Pansali	12	12 508			8	1,075
Gobhlaj	29	26,462			16	2,352
Bherai	26	20,073	4	1,610	16	2,849
Dhathal	14	10,477			7	1,783
Chitrasar	15	7,076			10	400
Vadala	12	9,680			7	334
Nayka	74	47,763	36	14,057	15	1,357
Kanera	23	11,966			19	3,101
Radhu	41	27,609	18	2,858	27	4 798
Rasikpur	17	7,548			10	790
Kaloli	18	10,731			11	1,889
Chandana	22	13,680			21	1,838
Mahelaj	17	6,874	1	40	18	3,385
Shetra	7	1,879	6	367	6	698
Vavdi	12	4,786	7	615	10	400
	451	2,97,437	81	20,418	267	35,538

Indebtedness

Revenue Unpaid		Sindhi		Without Interest				
Families	Rs.	Families	Rs.	Families	Rs.	Total Rs.	Secured Rs.	Unsecured Rs.
36	3,700	9	790	6	1,208	46,958	7,778	39,180
7	258	1	90	1	30	10,982	814	10,168
5	135	9	1,265			10,675	3,016	7,659
10	631	6	1,065	3	280	15,956	1,707	14,249
31	614	4	250	8	2,058	15,488	2 370	13,118
2	110	2	240	2	331	14,264	1,185	13,079
18	730	4	265	10	799	30,608	4,582	26,026
21	987	15	1,728	3	565	27,812	6,146	21,666
10	582	10	807	5	257	13,906	1,882	12,024
6	244	4	347	4	280	8,347	644	7,703
9	498	4	510	3	205	1,1227	2,918	8,309
60	3,037	28	2,272	14	1,926	70,412	7,618	62,794
15	696	8	660	7	178	16,601	3,797	12,804
39	1,475	1	50	9	1,012	37,802	6,805	30,997
11	401	1	20	4	370	9,129	1,306	7823
17	757			4	423	13,800	1,257	12,543
21	350	5	360	7	453	16,681	2,292	14,389
17	666			3	333	11,298	4,051	7,247
7	196	2	70			3,210	1,261	1,949
11	178			2	40	6,019	1,330	4,689
353	16,245	113	10,789	95	10,748	3,91,175	62,759	3,28,416

Extent of Indebtedness

1 to 25	26 to 50	51 to 100	101 to 200	201 to 800	301 to 500	501 to 1000	1001 to 1500	1501 to 2000	2001 3000	Above 3000
	1	2		3	8	12	8	5	3	2
				3	3	5		1		
				5	3	1	2		2	
			3		3	3	3	2	2	
1		3	6	4	7	8	3	1		
			2	1		1	5	3	1	
			2	4	3	9	4	4	2	1
	1		4	2	4	10	3	1	1	2
			2	2	3	4	1		2	1
			4	3	2	4	1	1		
	1	1	1		2	3		3	1	
		1	4	3	12	28	17	6	4	
		2		3	7	7	3	1	1	
2		1	1	5	9	13	6	4	4	
	1		1	3	6	3	3			
1		3	1	2	3	8	2		1	
			2	3	1	11	3	2		
		1	2	1	3	9	3			
			1	1	3	2				
		1	1	3	2	3	2			
4	4	15	37	51	84	144	69	34	24	6

Table 3—Matar Group

Village	Money-lender Families	Money-lender Rs.	Cooperative Societies Families	Cooperative Societies Rs.	Government Families	Government Rs.
Matar	17	8,745	1	30	10	1,825
Traj	19	12,868	10	2,145	19	5,130
Piparia	12	9,662			5	110
Koshial	6	3,300			6	960
Machhial	18	12,395	11	1,271	12	1,910
Khadialpura	14	9 657			15	2,280
Vasana	16	19,541	2	340	11	2,390
Sokhada	14	10,176			6	1,109
Undhela	7	3,462			3	1,200
Vansar	12	8,803	3	410	12	1,985
Sandhana	27	16,906	22	3,725	25	4,349
Radhwabj	14	8,537	4	675	11	3,436
Antroli	15	2,410	9	462	15	1,625
Khandhali	11	14,235	3	820	7	1,755
Lawal	13	11,159	9	1,993	11	1070
Malitaj	4	3,225	2	400	4	90
	1	9,550			1	157
Alindra	13	9,185			3	657
	232	164266	76	12271	175	31881
	1	9550			1	157

Indebtedness

Revenue		*Sindhi*		*Without Interest*				
Unpaid Families	Rs.	Families	Rs.	Families	Rs.	Total Rs.	Secured Rs.	Unsecured Rs.
15	562			4	525	11,687	2,388	9,299
17	709	3	140	2	165	21,157	7,984	13,173
7	225	1	60			10,057	425	9,632
6	157	1	75	2	150	4,642	2,039	2,603
18	383	5	310	1	50	16,319	4,130	12,189
15	305	5	432	3	400	13,074	3,769	9,305
10	680			4	1,235	24,186	7,480	16 706
13	539			1	30	11,854	3,704	8,150
8	408			2	1.000	6,070	4,462	1,608
12	270			2	550	12,018	4,565	7,453
23	632			7	511	26,123	13,520	12,603
12	335	1	50	6	3,390	16,423	3,209	13,214
13	164	2	85	2	130	4,876	1,541	3,335
12	372			2	245	17,427	11,382	6,045
12	91			4	260	14,573	8,573	6,000
3	73					3,788	3,088	700
1	130					9,837	7,837	2,000
17	499			3	675	11,016	1,999	9,017
213	6,404	18	1152	45	9316	225290	84258	141032
1	130					9837	7837	2000

Indebtedness

Averages of Debt

Per indebted Family Rs.	Per family Rs.	Per cultivated acre Rs.	Total Families Examined	Families without Debt	Total
649	615	91	19	1	18
1,114	1,114	81	19		19
838	838	92	12		12
774	774	91	6		6
859	859	112	19		19
817	817	95	16		16
1,344	1,344	84	18		18
790	697	67	17	2	15
674	607	55	10	1	9
924	924	152	13		13
901	901	155	29		29
1,173	1,173	112	14		14
325	325	101	15		15
1,341	1,341	191	13		13
1,121	1,121	158	13		13
756	756	65	5		5
734	551	68	20	5	15
908	883	108	258	9	249

Extent of Indebtedness

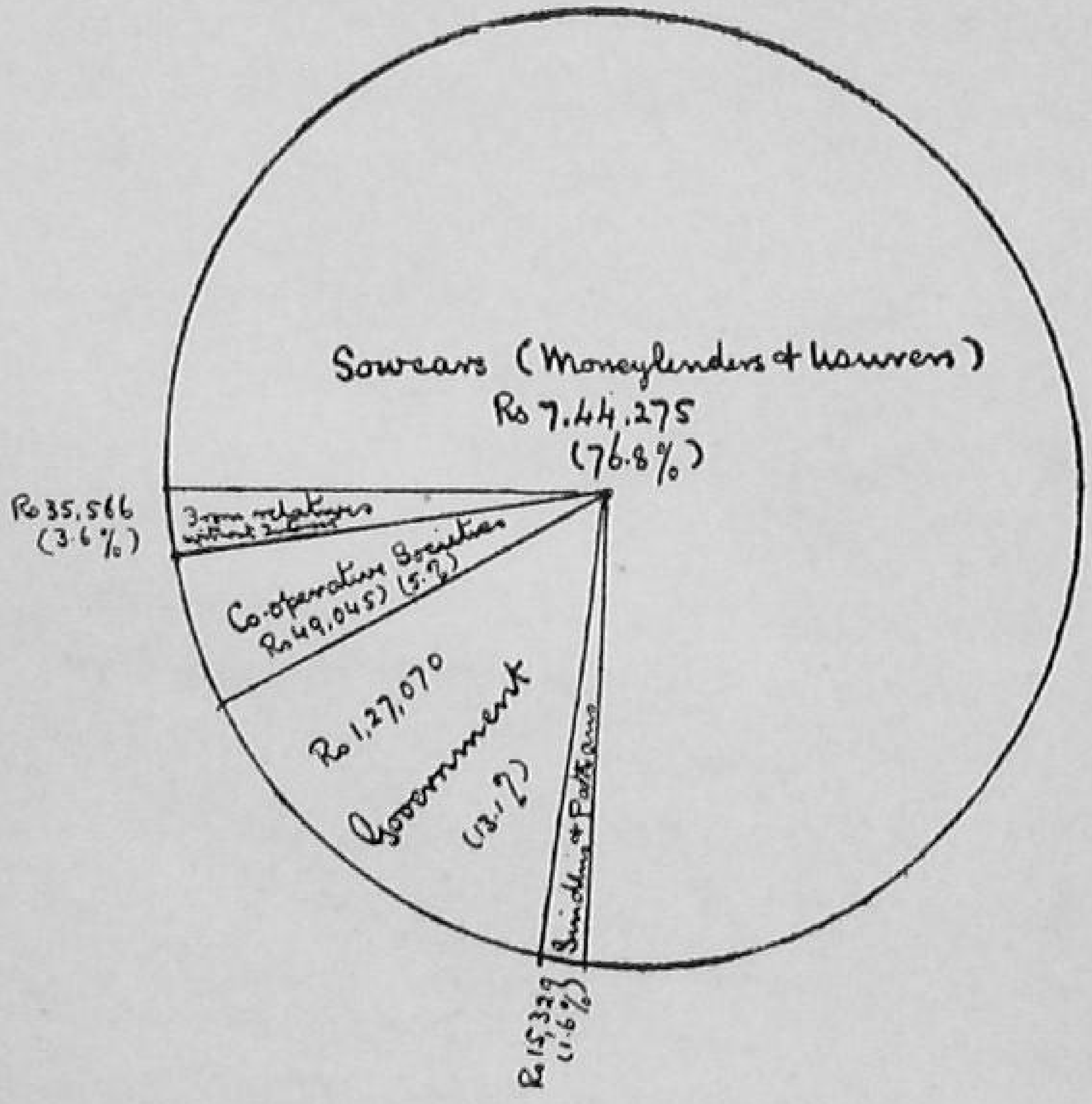
1 to 25	26 to 20	51 to 100	101 to 200	201 to 300	301 to 500	501 to 1000	1001 to 1500	1051 to 2000	2001 to 3000	Above 3000
		2		2	6	5		2	1	
				1	4	4	6	3	1	
		2	1		3	5				1
			1		2	1	1	1		
	1	2		1	3	6	2	1	3	
1				1	3	7	2	1	1	
2				1	1	5	5	2		2
	1			2	2	6	3		1	
1				1	3	2	1	1		
			2		1	5	3	1	1	
			2	2	6	10	7	1		1
			2	2	1	2	2	1	3	1
		1	3	3	6	2				
		1		2	4	1	1		2	2
		1	1		2	1	4	2	2	
						3		1		1
			1	4	1	2	6	1		
4	2	9	13	22	48	67	43	18	15	8

Table 4—Summary of Indebtedness according to Objects

	Limbasi Group		Navagam Group		Matar Group	
	Rs.	number of families	Rs.	number of families	Rs.	number of familise
Agricultural Expenses	74262	341	120154	419	30910	180
Family expenses	81233	361	80087	367	40746	200
Revenue	3749	62	16145 (unpaid)		6870 (unpaid)	212
Land	15310	40	4475	20	10335	20
Houses	53393	212	46750	179	35152	145
Social	68798	168	56727	149	44170	97
Old Debt	14927	33	24601	50	11060	23
Interest	6018	31	6439	20	2325	8
Cattle	3154	23	3967	26	1707	19
Not mentioned	18556	57	16454	30	22177	37
Miscellaneous (litigation, redemption & Loss in trade etc.)	2390	7	2494	6	6386	16
Special cases	16530	2	12882	3	23289	4
	3,58,320	432	3,91,175	472	2,35,127	249

IX

A
Circle Pictogram
Showing Sources of Loans
(for details see Schedule F)



In this part of the country, the need for the first kind of loan is supplied by the money-lenders, or (taccavi) loans from Government. The second need is often met by the supply of bullocks by Sindhis, or loans from Pathans or money-lenders. The long term loans are usually obtainable from the Government or the money-lenders.

Sources of Loans

The farmers of Matar Taluka share the chronic indebtedness of the agriculturists in general and of the ryots of India in particular. Hardly five per cent of the families we have examined in this taluka are free from debt. As a rule, their facilities for finances are limited. In most villages, the financing of the farmer is left to the sowcar and the usurer. Some Sindhis and Pathans also do business of usurers. In more recent years, co-operative societies have been organised to help in this important function. Government aid is generally restricted to helping the farmers out of calamities by giving loans for seeds, houses, wells, cattle etc.

Sindhis and Pathans

The system of lending by Sindhis is rather peculiar. They do not advance the borrower cash but provide him with bullocks on the instalment plan. The price charged includes exorbitant interest. They usually come with

the bullocks to these villages about the beginning of the monsoon and revisit the villages for the collection of their dues after the harvest. When they come, they come in batches and demand the hospitality of their debtors. Their attitude is often menacing and they ruthlessly collect their pound of flesh. In the three groups, about 165 families of those that we have examined, are indebted to the Sindhis to the extent of about Rs. 15,300. These families represent usually those with the lowest amount of credit, as borrowing from the Sindhis is only resorted to as a desperate measure. The bullocks borrowed are often sold away at comparatively low prices, which makes the system of borrowing from the Sindhis a very expensive one.

With the exception of about 3 or 4 villages, very few resort to borrowing from the Pathans. Unlike the Sindhis, the Pathans lend cash and take their interest in cash.

Non-Interest Bearing Loans

One hundred and ninety families have borrowed about Rs. 36,000 from relatives. Generally speaking these are not interest-bearing debts and, therefore, this does not represent the same kind of demand for capital that the other methods of financing represent.

Co-operative Societies

In this taluka the co-operative system of financing has not proved attractive to the people. For the past few years hardly any business is being done by the co-operative societies, many of which have already become defunct. 245 families still owe about Rs. 49,000. Most of these debts were incurred prior to 1927. Generally the rate of interest varies between 9 and 12 per cent on good security. The unpopularity of the society appears to be largely due to the cumbersome organisation which is rarely understood by the members. By the time the various routine work in connection with authorising the grant of loans, was got through, several days and even weeks would have passed, and then the amount, when granted, is remitted to the Government Treasury at Matar from where the local society has to get its loan. The farmer, therefore, naturally prefers to deal with the sowcar who disposes of the case there and then. This lack of expedition and want of human touch were in no small measure responsible for the failure and the disappearance of the co-operative societies in this taluka. The terms were broadly that 10 per cent of the loans granted were to form a compulsory deposit on which was paid interest of one pie per rupee per month, while the borrower was charged two pies per rupee per

month. If the borrower fails to repay the loan on the appointed day a penal interest of 18 $^{3}/_{4}$% is liable to be charged. In most cases lending is done on security. It would appear that hardly any body has borrowed from the society to pay off the money-lender. Borrowing from the societies also lacks privacy which damages the credit of a borrower in a village. The co-operative societies insist on their dues being met at the proper time in cash. This often entails hardship. Owing to these and other reasons the society has not been able to make headway against the more human element in the sowcar. Co-operative societies also demand Joint-bonds as further security for the loans granted. This transaction is not well understood by the farmers and they look upon it with great suspicion. Besides, membership in the society involves unlimited liability. Under these circumstances it is not difficult to understand the sentiments of the people of Nayka village, regarding co-operative societies, expressed in their address to His Excellency Sir Leslie Wilson, on the occasion of the Governor's visit to this taluka. They said, "The co-operative society movement, which stands for a great principle and holds out a promise of making this world a much better place for all to live in, has proved itself, to us at least, a veritable curse of the Gods." Again,

the people of Matar Taluka in their address to His Excellency Lord Irwin, on the Viceroy's visit to Matar expressed themselves as follows. "The co-operative movement has on the whole proved a bane to this taluka and instead of diminishing our indebtedness has contributed to it in a great measure."

Taccavi

In times of extreme need the Government assists the farmers by giving advances to meet the cost of seeds and other agricultural expenses such as buying of bullocks, sinking of wells etc. These are, what are commonly called, taccavi loans. In a few cases, Government has also advanced money for permanent improvement and building of houses. In 703 families over one lakh of rupees has been borrowed. This method of borrowing, like the Co-operative Society, is also very unpopular for much the same reasons. The people find the involved routine to be gone through in obtaining loans too much for them. They also dislike the treatment meted out to them by the petty government officials. To obtain a government loan the farmer has often to visit the taluka town to get his money. This means both time and labour for those who are living in the outskirts of the taluka It is not practicable to approach the Government for petty amounts when needed. Besides, the Government demands

security for the loans. In the matter of repayment, as well as in taking interest, the Government is necessarily very rigid. Both in the case of the Co-operative Society loans and the Government loans the farmer does not realise his position and looks upon these soulless bodies as existing for his benefit and he lowers his standard of business morals in dealing with them. These two sources are also not available to the farmer for purposes which are generally described as being unproductive, that is, for personal purposes.

The Money Lender

Prior to the famine of 1900, the money-lender seems to have had a monopoly of financing the farmers of Matar Taluka. At that time, the rate of interest, we understand, was 4½ to 9 %, and the money-lender himself was able to obtain loans at 3 %. The money-lender helped the farmer, from time to time, with small loans as the necessity arose. The formalities to be gone through were none and the property of the farmer was not definitely mortgaged. With the advent of Government and co-operative societies lending on definite securities the money-lender's risk was enhanced and thus the interest rates were also increased. The Government got the first charge, the co-operative society the second charge and the money-lender

was left in the lurch. The business of money-lending ceased to be attractive and most of the sowcars of the taluka found investment for their money in cities.

Judging from the actual working of the departments, the Revenue Department and the Co-operative Societies seem to have entered into an unholy alliance to the detriment of the farmer and the money-lender. Under the powers conferred on the Honorary Organiser of Co-operative Societies, when acting as a liquidator, he can issue a writ of attachment on the property of the debtor without the aid of a Civil Court, and the Revenue Department, with all the tyrannical powers at its disposal, will carry out such writ without any further legal formality. Thus, the farmer is placed at the tender mercies of the Co-operative Society and the Revenue Department, beyond the protection of a Civil Court. Although at present, the interest and the premium charged by the sowcar sometimes is in the neighbourhood of 20 per cent, yet, it is an unsecured debt ranking for payment after the Government and the Co-operative Society.

The Usurer

With the flight of Capital from the villages to the cities, the rate of interest to the farmer has gone up, and the finances of the farmers have fallen into the hands of unscrupulous persons,

who do petty money lending combined with retail shopkeeping. The class of old respectable money-lenders has almost vanished, being ousted by usurers who manage to hold their own against Government as well as Co-operative Societies. They have been able even to thrive against all attempts at legislative measures intended to protect the agriculturists against them. We would go further and say that ill-advised legislation has driven respectable persons out of the field. Many of the respectable money-lenders went with their capital to the cities and those who stuck to their old avocation degenerated into usurers.

Rates of Interest

As regards the rate of interest, we have already dealt with some points under the paragraph dealing with Co-operative Societies. The rate has gone up considerably during the last 2 or 3 decades. It is not possible within the space at our disposal, to make a complete survey of the contributory causes. We can but make mention of some of the important factors. We have already mentioned that with the advent of the Co-operative Societies most of the money-lenders found investment for their capital in cities. This naturally led to scarcity of money in the villages thus helping the rise in the rate of interest.

Scarcity of Capital

Since the advent of the British, a large amount of Indian Capital has been transferred to London, which is a comparatively cheap market for money. As though this were not enough, the Gold Exchange Standard Reserve and Paper Currency Reserve, amounting in all to 60 million pounds is also kept in London. This means, that over six hundred crores of loanable capital is denied to India. Transference of money from a place where the ruling rate is 6% to 9% to a money market where the ruling rate is $2\frac{1}{2}$ to 3 % will undoubtedly make the situation worse. Thus, all over India, there is a scarcity of money which is reflected in the high rates of interest.

Lack of Banking Facilities

Apart from this, the system of banking, as prevalent in India, and as practised by the Imperial Bank of India, also drains all available funds from the rural parts to the cities, thus intensifying the existing scarcity of money in the villages. We have at present no central banking organisation, like the Federal Reserve Bank of the U. S. A., which seeks to redistribute the country's finances to localities mostly in need. To lower the rate of interest it is necessary to have an organisation which will draw surplus capital from the cities and make it available to the farmers.

Absence of Credit Instruments

As our financing is, even to this day, mainly carried out on a cash basis, the use of credit has not entered into it to any great extent. This has been a great handicap as credit instruments, such as cheques etc., which facilitate financing with the minimum of metal reserves, have not found their way into our villages. On the other hand, even the amount of coin that has been in circulation has been steadily withdrawn and this policy of contracting* the currency pursued by the Government of India, side by side with the maintenance of an artificial ratio of exchange, has played an important part in pushing up the rate of interest. In effect, the present exchange policy is a tax of $12\frac{1}{2}\%$ on the capital value of products exported by the farmers.

Effect of Further Facilities

It has been said that further facilities for borrowing will only lead to an increase in indebtedness. Although the statement may be true within limits, it is impossible to generalise from what we observe under abnormal

* According to the Federation of Indian Chambers of Commerce between 1st. January 1920 and 7th Febuary 1931 there was a net contraction in currency of Rs. 131 crores (Indian Currency and Exchange page 63). The effect of this contraction is to increase the purchasing power of the old debts and thus increase the real burdan on the agriculturist.

conditions. At present, the cultivators are starved for funds. They are unable to procure for themselves even their mere necessaries, and it is but natural that under such circumstances, if further funds are available, they should borrow increasingly until their pressing needs have been satisfied. When this point is reached, the amount of borrowing will also decrease. Side by side with greater facilities for finance, if their production is also increased, we have no doubt that this chronic indebtedness would be a thing of the past.

Financial Stringency

At the present time, the farmers of Matar Taluka are experiencing great hardship in obtaining finances. Practically all the Co-operative Societies have become defunct, Government has ceased lending, and most of the old money-lenders have found lucrative investment in towns. Villages are eagerly looking forward to the return of the money-lender who was a boon to them, with all his faults. Even at present over 75 % of the borrowings are from money-lenders and usurers. What we find is, of the three evils—borrowing from the money-lender, the Co-operative Society and the Government, the least harmful is the sowcar. We have already explained the difference between the sowcar and the usurer or

instalment lender, the sowcar generally is far more accommodating than the usurer who often resorts to coercive methods for the collection of his dues, which is generally the objectionable part of the business as conducted by the Government, Co-operative Society or the usurer. And this explains why farmers prefer the sowcar to any of the other three. There is no doubt that the money-lender fulfilled a much needed function in village economy which both the Co-operative Society and the Government have failed to meet. In some cases we find that the farmers had actually borrowed from money-lenders to pay off the amounts due to the Co-operative Society or to the Government. Thus the Co-operative Society instead of being a relief to the farmer has become a further cause of indebtedness.

Interest Analysed

There has been a great deal of criticism about the high rates of interest charged by the money-lenders. Such critics do not appear to appreciate the fact that the rate of interest in such cases is not what economists call pure interest, but it has in it an element of insurance and instalment of return of capital as the sowcar has to face considerable amount of bad debts. Looking at it from an outsider's point of view, if the sowcars were really

XI

A GROUP OF FARMERS OF PINGLAJ

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getting all the amount that they are accused of charging they should be millionaires. No doubt, a few of them have enriched themselves beyond measure, but taking them as a class, their position is not much different from that of the petty traders. The charge that is levelled at them is based more on prejudice than on facts. This is borne out by the fact that such of the money-lenders as have left their profession and have gone into cities to invest their capital at 4 and 5 % are unwilling to return to their former avocation, although the rate of intererst will appear to be attractive. Further evidence that the interest charged is not exorbitant is borne out by the fact that inspite of the apparently high rate of interest, capital available in the cities is not attracted to the rural areas. Money market is the most sensitive of all markets. Even a slight change of 1/2 % or 1/4 % would turn the current in the opposite direction. This being so, the failure to attract capital inspite of high rates of interest is a good indication that such interest is not clear profit.

Usurer's Method

We find the usual method of business adopted by the usurer is to charge a lump sum of premium on the loan and give the net amount to the borrower, computing interest at

Causes of Indebtedness

Our analysis of the causes of indebtedness shows that 940 families have been obliged to borrow for agricultural expenses. Next in importance comes family expenses for which 928 families had to borrow and the third cause for indebtedness is the payment of land revenue, with 570 families in this predicament, the fourth being the cost of social functions in which 414 families are involved. It hardly requires any explanation for the first two causes. Agricultural expenses have, the world over, to be met by temporary borrowing. Borrowing on account of family expenses is a clear indication that agriculture in India today does not pay. In the words of the Royal Commission on Agriculture, "To a very great extent the cultivator in India labours not for profit, nor for net return, but for subsistence." And even in this he rarely succeeds. When we remember the low standard of living and the little that a cultivating family requires the situation assumes a serious proportion. But the worst of the causes for indebtedness is the third, viz. payment of land revenue. As we have already pointed out in the chapter on this subject, the land revenue, as it is assessed today in India, is practically a capital levy. When peasants have to borrow in such large numbers to pay their

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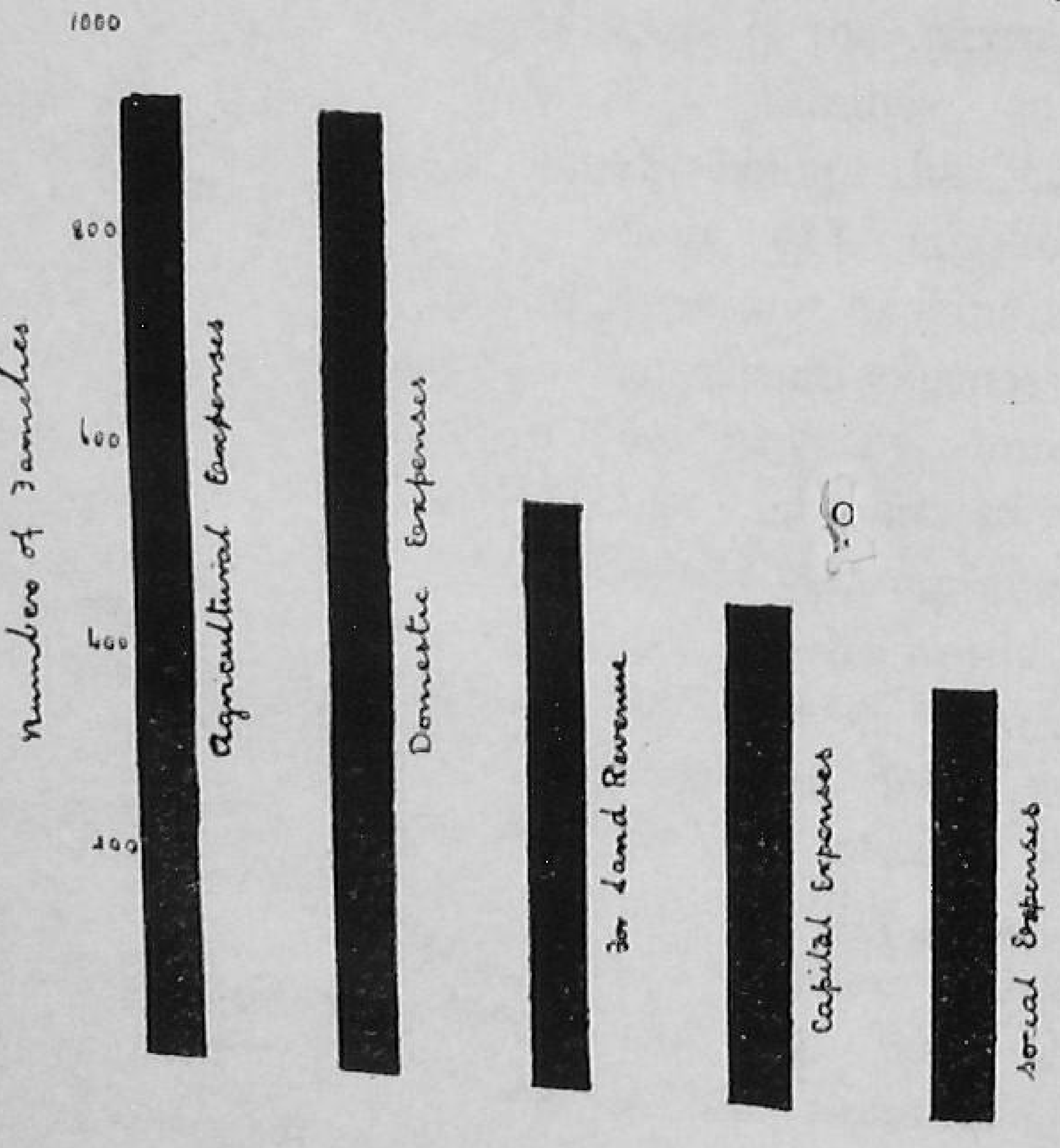
A
Frequency Diagram
Showing
Causes for Borrowings
(for details see Schedule X table 4)



dues to the government it goes without saying that the government dues are extortionate. Strictly speaking, revenue to the Government should be paid out of income. But, at the present time, the farmers are paying it out of borrowed capital. The next cause of indebtedness, viz. social expenses, has received more than its due share of attention. Government appears to have carried on a malicious propaganda, putting this forward as the chief cause of indebtedness, thereby hoping to shield the real causes. The first three causes reflect discredit on the Government itself, in that it reveals the poverty stricken condition of the country and the callousness with which the administration has gone on without attempting to increase the production of the peasants. It is true that the amount borrowed for social purposes is much more than the amount borrowed for revenue but this is no proof that the cause of indebtedness is the excessive social expenditure as in the nature of things social expenditures will ordinarily be much larger than taxes. The important fact remains that a considerably larger number of families have to resort to borrowing to pay the land revenue, than those who borrow for social expenses.

Social Expenses

These social expenses mainly consist of cost of marriage and death ceremonies. If the income of the farmer is not even enough to

meet his food charges and pay his land revenue, how is he to meet these elementary social needs? Any occupation worthy of consideration will have to provide not only the mere necessaries of existence, such as food, clothing and shelter, but also certain amount for the education of children, recreation and social relations. In the West, even such things as a radio or a motor car are brought under the heading of necessaries, but in our country, to the farmers, who hardly get an opportunity of even visiting a cinema once in a life time, or a mela once a year, and such expenses as also that of feasting their friends during marriage occasions, are considered as luxuries by our government critics to justify the present incidence of Land Revenue. Life in a village is drab enough and an occasional entertainment or festivity is indulged in to relieve this monotony. The Government seems to grudge the farmers even this relaxation. If the farmers have to borrow to meet the expenses of these necessary social functions, it means their occupation is not sufficiently remunerative to provide for the bare necessaries. If the standard of expenditures is much higher than their present income will warrant, it is because these standards were set at a time when the peasants were comparatively better off, and when their time was fully occupied. The most conservative items in a

family budget are always those relating to social functions. A person will be prepared to go without even the necessaries to keep up the standard of his social expenditure. The only remedy for this seeming extravagance is to devise ways and means of increasing the productivity of the people and not to reduce the only available digression and relaxation. But as things are today, and until matters can be remedied, the farmers should avoid all unnecessary expenses during the transitional stage. As will be seen from the chapter on Finances, a large number of persons are living on an income less than Rs. 20 per head per annum and so their expenses have to be in proportion to their income and borrowing for social expense should be stopped. Our peasant's standard of living is barely on the subsistence level, so that it is not possible to cut down expenditures any further nor is it wise to suppress, for all time, legitimate human social instincts. The expenditure side of the budget is already at a minimum and such necessaries as education and medicine do not find any place in it. Hence it is, that for social expenditures people have resorted to borrowing as they are also reluctant to curtail what little there is of social amenities.

Litigation

Amongst the Navagam group of villages, there is to be found one other cause for their

indebtedness which we have referred to under our chapter on 'Irrigation'—Canals, affecting what are known as the kalambandhi villages. This is the aftermath of the litigation which the kalambandhi villages entered upon against the Government to establish their right to the water of the river Khari.

Conclusion

It will be seen from the table of indebtedness that the burden sits heavily on all the farmers. Although, the usurers do not get the amount that may appear to be due to them on the books, yet, if there happens to be a good year they would be entitled to take all they can. Hence increase of production does not interest the farmer to any great extent. In some villages, we were told by the money-lenders themselves, that they were prepared to transfer all their dues to one who would pay 25% of the face value of the debts on their books. If a scheme could be evolved, by which, the usurers could be paid off and farmers relieved, it would add an inducement to increase production. As the nature of this survey is an extensive one rather than intensive, we have not gathered sufficient materials to tackle this problem definitely. A Committee of Inquiry should be appointed to find ways and means of solving this problem of indebtedness.

CHAPTER IX

HYGIENE AND HEALTH

Drinking Water

On the whole, it may be said that in this taluka the caste people are fairly well provided with drinking water; but many of the drinking water wells are either in bad repair, or surrounded by insanitary and muddy environments, and several of them get brackish as the subsoil water level goes down during the summer months. But the facilities for the untouchables are in a deplorable condition. In the Limbasi group of villages, with the exception of Limbasi, Khanpur and Tranja, all other villages have no arrangement made for the untouchables. In many of these villages, Dheds, Chamars and Bhangis have to get what water they can from pits dug in tank-beds. They are put to a great deal of hardship, especially during the summer season. The condition prevailing in Marala needs honourable mention. While the caste people have got two wells the untouchables have none. There is a

nicely cemented trough for the cattle but these out-castes have to help themselves from a stagnant pool, which gets its water from the cattle well. In Sayla also, the untouchables have to struggle hard to procure water.

In the Navagam group of villages, the condition, though deplorable, is not as bad as in the Limbasi group. About half a dozen villages in this group have separate wells for the Dheds and Chamars, but even in such villages, the Bhangis have to shift for themselves. In all other places, these untouchables get their drinking water from pits dug in the beds of the tanks, but the villages on the banks of either the Watrak or the Sabarmati, get their water from these rivers. The river water itself is not much cleaner than the water of the pools from which the other villages obtain their supply. These rivers are but small streams during the dry season, and receive drainage and other polluted water from the villages and towns through which they pass. Buffaloes, donkeys and other animals contribute their own quota of dirt and therefore the water is not drinkable without being passed through proper hygienic filter-beds.

The condition, in Matar group of villages, is no better. Considering the water supply of these villages, one is surprised to find that the mortality from fevers is not higher than what it is. This is probably due to the inherent

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A HOUSE OF A BANIA AT MATAR

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vitality of the people and the abundant sunshine and fresh air.

Housing

In most of the villages, the houses are well-built of brick and timber, but they were built by a generation which had known better days. A great many of them today are in a dilapidated condition and in bad repair. The plan of the houses leaves a great deal to be desired. There is, practically, no arrangement for ventilation excepting the open doors. A few of the more recently built houses have small windows. The kitchen, being right in the interior and having insufficient outlet for the smoke, adds to the discomfort and darkness of the house. To add to these impurities in the air within their houses the lighting arrangements contribute not a little. A major number of the lamps burn kerosene oil, but the combustion is not completed as there are rarely any glass chimneys (globes) on the lamps. The flame is open and emits a considerable amount of soot. We realise, in the present strained financial conditions, that it will not be possible for many of the families to afford glass chimneys, but there is no need for this. We would rather suggest as a substitute for these open-wick kerosene lamps the old-type castor-oil lamps, at least, until such time as

the farmers can afford to buy proper lanterns or lamps. In any case, as used at present, the kerosene lamp is injurious to their health besides being too expensive, while castor-oil lamps will cost them next to nothing. A few stray castor plants grown amongst the crops will supply the requirements of the family, the lamps are but mud vessels supplied by the Kumbhar of the village free of charge, and the wicks are plain cotton yarn. When a family has to live on a per capita income of Rs. 14 per year no saving is too little for consideration. The flooring is, as a rule, of mud smeared with cow-dung. This seems to serve their purpose remarkably well; it is both clean, and warm in winter. The roofing is generally of burnt tiles in the better houses, but corrugated zinc is fast coming into vogue. The merits of this change, we have discussed in our chapter on 'Industries.'

The Patidars, in particular, have great many brass vessels and utensils.

There is no provision made for any privacy for bathing purposes. Generally, persons bathe out in the street, on a slab, in front of their houses. This means, that they are never undressed completely to allow of a proper cleansing of the skin. More especially is this bathing a farce or a ceremony in the case of women. A small enclosure could be built into their houses as

bath-rooms or the village Panchayat should provide a number of cubicles near the well, where people could bathe conveniently, and the water from such public bath rooms can be utilised for watering banana plantations. This defect in the mode of bathing is largely the cause of various common skin diseases we meet with in villages.

The hygienic and sanitary habits of our people can be cultivated only by a well directed effort. A mere spasmodic attempt to clean the village, or give some such demonstration by our social workers will be in vain. We have to educate our people by an intensive sustained propaganda. This will mainly prove fruitful if the children are taken in hand immediately. Village schools should have time allowed during the school hours to teach the children how to bathe, clean their teeth etc., and when these children grow up, they can be trusted to bring up the next generation in the proper way. At the present time it is necessary to make a beginning in the schools themselves.

Sanitation

Even among the caste people for whom wells are provided, one would expect to see a greater prevalence of fevers, considering the amount of filth and dirt that usually surrounds the village well. The waste water is not directed

by channels and put to any useful purpose, such as watering a garden, but is allowed to run and collect into black cess pools for buffaloes to wallow in. This condition around a well would naturally pollute the subsoil water.

In most cases, the banks of village tanks are used as public latrines. There is practically no provision anywhere for privacy. The children seem to use the streets themselves. In this connection, we would refer to the suggestion we have made in our chapter on 'Manure', regarding portable latrines constructed on the fields to utilise night soil as manure.

One fails to see what services Government renders in providing drinking water or regulating sanitation. One looks in vain for any signs of government activities in the interest of the people. The government officers are only in evidence when the extortionate land revenue falls due for collection. There is no attempt to keep the village in a sanitary condition from the side of the Government. One or two of the larger villages like Limbasi and Matar have an elected sanitary board which makes spasmodic attempts at supervising the work of the Bhangis.

Drinking Habits

In this Taluka there are liquor shops at Matar, Alindra, Radhu, Limbasi, Bhalada, Navagam and Dethali. Drinking is mostly

prevalent amongst Dharalas and untouchables. The Patidars, as a community, are free from it. As most of the villages are several miles away from these liquor shops, inveterate drinking is confined to only a few in towns where these shops are situated. Compared with the other talukas of Kaira, Matar Taluka could be said to be comparatively sober. The Licence Revenue to the Government is about $\frac{1}{12}$ of that from Anand or Nadiad Talukas.

Common Diseases

The most prevalent ailment all over the taluka seems to be Malaria. Owing to the repeated attacks the population is slowly losing its vitality. This is a preventable disease and civilised governments stamp it out in a few years, as has happened in the Panama zone. But our Government has done absolutely next to nothing, either by way of prevention, or cure. Officially, they are suppossed to be distributing free quinine, but practically no one gets it. Small quantities are given to the Patels, which are barely sufficient for his own family needs. Most of the people depend on their own concoction to rid themselves of the fever.

Medical Aid

It is only in Matar, Navagam and Alindra that there are dispensaries. People have to go several miles to get any treatment at all. Those villages which are nearer Baroda State are

more happily situated for medical treatment as there are dispensaries and hospitals at Petlad, Sojitra, Tarapore and Vaso. At Limbasi dispensary a few simple medicines are dispensed, but for this a charge of half anna per head per day is made. This dispensary receives a grant from the Local Board. The Matar dispensary is maintained by the Local Board as well as the one at Alindra, but the Government makes a grant towards a part of their expenses. For serious cases, the patient has to be taken to Nadiad, Anand or Ahmedabad. Thus hardly any attention is paid to the health of the people. Is it any wonder then that the mortality statistics show a steady high rate of mortality and especially among children under ten? There is practically no provision anywhere for midwives. In a very few villages, the barber woman or a shepherdess or some one of the lower class women attend at child birth. There is hardly any one in the taluka excepting the sub-assistant surgeon at the dispensaries at Navagam and Matar, who has had any training for the work. If the child mortality rate is to be lowered adequate provision has to be made for properly trained midwives and satisfactory sanitary arrangements in the villages must be ensured. Without these elementary needs being supplied, one can hardly expect a race of sturdy farmers.

CHAPTER X

CATTLE

Bullocks

Both, in Limbasi and Matar groups of villages, the census of bullocks as shown in the government records, reveal the fact that there is an over stock of draft animals. In the Navagam group of villages, where rice is generally cultivated by irrigation, the reverse is the case. This situation may be accounted for by the inefficiency of the animals. The bullocks generally appear to be very much underfed or overaged for work. Having a larger number of bullocks than necessary is uneconomic and increases the over head charges. This over stock of cattle may also be due to a lack of evenness in the demand for their services during the year, thus causing a good deal of under-employment in certain seasons of the year, and over–work at other times. This state of affairs has been aggravated by the introduction of mechanical transport, motor pumps and other devices.

Milch Cattle

Patidars and cultivators generally keep buffaloes for their milk supply in preference to cows, as the former are better milk producers. These animals add considerably to the insanitary condition of the village. The Patidars in particular have a most objectionable custom of having their animals near their dwellings. This increases the chances of disease and illhealth. On the whole, the buffaloes seem to be better cared for and better fed than the cows. There is a scarcity of buffàloes. It would certainly be in the interest of the cultivators, in the long run, to maintain good cows and feed them well, as they supply both milk for food, and bullocks for draft animals. As he-buffaloes are not capable of strenuous work they are practically useless as bye-products.

Cows are kept mainly by the shepherds for production of bullocks. They also keep sheep for wool and goats for milk. These animals are also ill-cared for.

Stud Bulls

There is a scarcity of proper stud bulls, with the result, that the quality is said to be deteriorating from generation to generation. The provision of good breeding animals should be the care of the Government department

detailed to look after the interest of the agriculturists. But in these parts, neither the agricultural department, nor the veterinary department, has been heard of. From the dealings with the agriculturists it would seem as though the Government conceives its duty finished with the collection of the land revenue.

Grazing Land

The general complaint everywhere is, that there is not sufficient grazing land. In several villages the cultivators have to leave large margins in their plots for grazing purposes. This means the using of valuable and fertile land for grazing purposes, which is a very uneconomic proposition. These borders are also subject to Land Revenue. Government seems very anxious not to allow grazing on waste lands in some villages unless their fee or licence is paid. Even rules regarding waste areas seem to stand in the way of supplying adequate fodder.

Veterinary Help

As in the case of medical aid in villages, so also in the case of veterinary help, the villages near the Baroda or Cambay States are better off. There are veterinary hospitals at Petlad, Cambay, Dholka and Nadiad. But these hospitals are very far away and there is no transport facilities for the cattle, so that in

effect, the cattle of this taluka have no provision whatsoever for the treatment of their ailments. The shepherds get the bull-calves castrated by the *vagaris* by a very crude process. In this connection also the Government renders no services to the people of this taluka in return for the revenues they extract from them.

Drinking Water

As regards drinking water for cattle, there is not much trouble, as long as tanks contain water, but many of these tanks hold water for a few months only after the monsoon. At other times, villages on the banks of the river, usually drive their cattle to the river for watering. In other villages, water has to be lifted from wells in which the water-level has already sunk low. Lifting water for cattle is an expensive process. In villages like Limbasi, this is done co-operatively.

CHAPTER XI

MISCELLANEOUS

School

About half the number of villages in Limbasi and Navagam groups are provided with schools by the Local Board. Not all of them have school buildings of their own. Where there are no school buildings, the classes are held, usually, in the village Dharamsala. A few of the boys from villages, where there are no schools, attend the schools in the neighbouring villages. The attendance seems to be fairly regular but the pupils are few. In practically every case a small fee is charged. There are only one or two schools which teach upto the sixth Gujarati Standard, all the others being elementary schools.

The Matar group of villages are in a much happier position as regards provision for schools. With the exception of Piparia, all other villages have one or more schools for boys and girls.

These schools are partly supported by the Local Boards, but administered and controlled by Government.

In agricultural villages, it is rather difficult to get parents to spare their children so that they may attend schools, and especially, as the people of this taluka are living much below the subsistence level, the parents need all the help they can get to make both ends meet. Inspite of this difficulty, the Local Board has been able to provide for at least, elementary education.

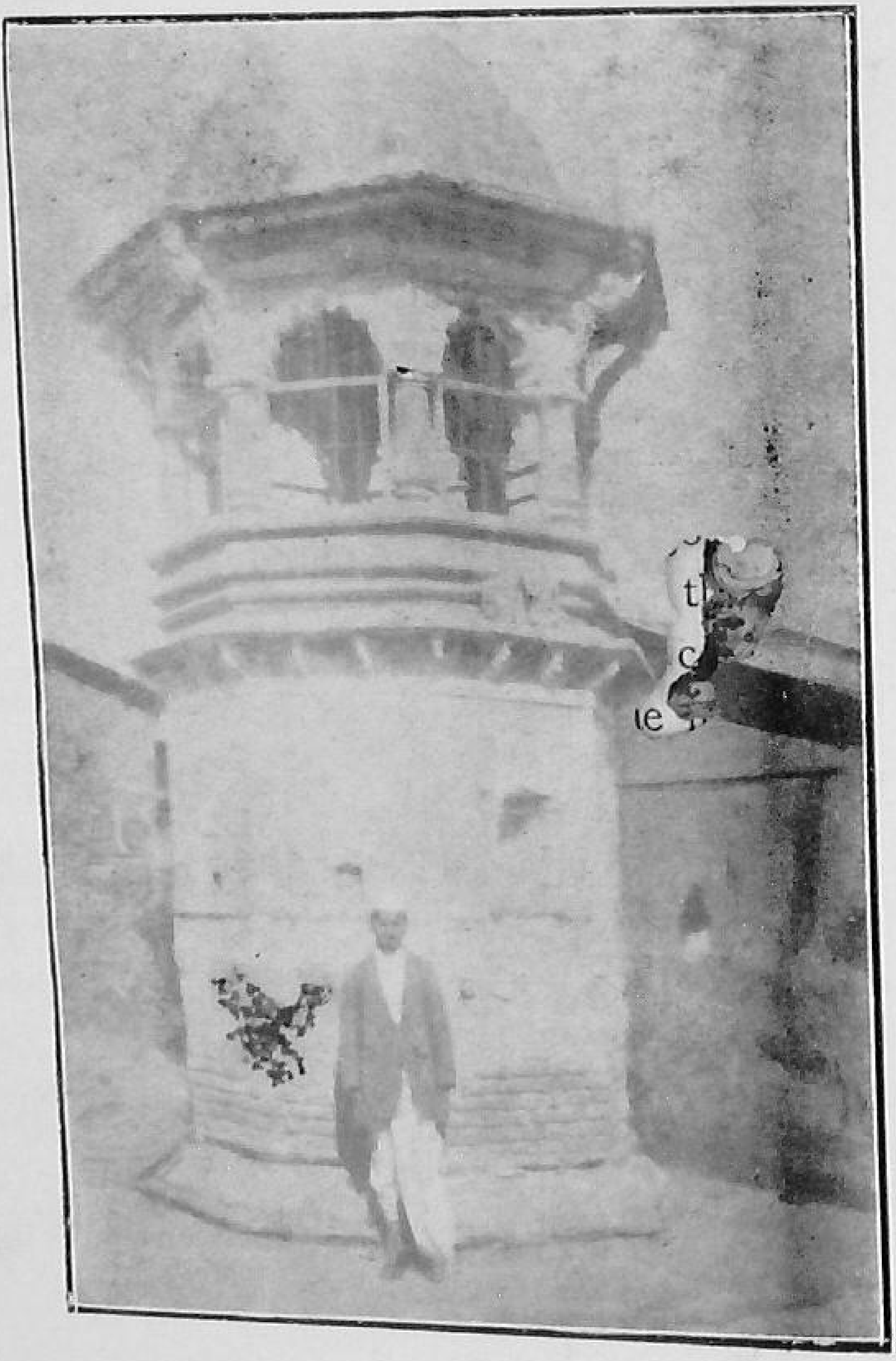
This taluka contains about sixty thousand inhabitants and it has not got even one high school. As regards literacy the taluka ranks fairly well. About 27.7 per cent of the males are literate and 3.4 % of the females can read and write. This compares favourably with the all-India-figures of 1921 of about 11.53 % for the males and 1.38 % for the females.

Public Buildings

In these villages, the usual public buildings take the form of *Parabadis*, Temples, Mosques, *Dharmasalas* and *Choras*. Many of the *Choras* and Dharmasalas are in very bad repair. As a rule, the Dharmasala belongs to the people and all visitors to the village are allowed to use it freely.

The *Choras* are government officers' rest houses.

XI



THE PARAPADI AT LIMBASI

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As we have already mentioned there are hardly any school buildings.

One outstanding feature of Gujarat villages might be here mentioned and that is a 'Parabadi' which is usually in the form of a tower, on top of which birds are fed with grains, paid for out of the village fund.

Village Fund

In most villages, a fund is formed from the brokerage commission payable on the sale of produce from the village, and from other items of minor importance, and contributions. It is commonly used for repairing temples, feeding birds, dogs, and or entertaining visitors. Even when people are starving maunds of grain are being thrown away to the birds. One fails to see any rational action in such sentimental provisions for the exhibition of kindness to dumb creatures. The accumulated funds are usually kept in the hands of the local Vanias.

Burden due to non-producers

An imperceptible burden is thrown on the community by the maintenance of fakirs, sadhus and bavas. These people are not producers in the economic sense of the word. They have abandoned the old function assigned to them of teaching the people and helping them in the practice of their religion. Today, their position

is parasitic as they are purely c[illegible]sumers. A great many of them trade on the superstition and the ignorance of the masses. Although the burden itself is comparatively light, yet, when we take the number of such unproductive persons all over the country, it becomes a serious problem. In a measure, similar criticisms may be levelled againt some Brahmin families which receive their 'Baluta' and render comparatively little service. If some duty, such as teaching in primary schools, were added to the ordinary duties of their calling, something may then be said in justificati[illegible]f the burden they throw on the village.

Postal Faci[illegible]

In this taluka, there is a Post and Telegraph Office in Matar and branch offices at Limbasi, Radhu, Moraj, Traj, Nayka etc. In other villages, letters [illegible] d[illegible]livered on certain days of the week. Even [illegible]arge village, like Navagam with a population of about 1,000, has no Post Office. Unless means of communicating thoughts are provided to the villagers, along with education, their mental horizon will be very limited, and the villages get isolated from the rest of the country. If the country is to advance, every village should have reasonable facilities of c[illegible]nication with the rest of the world[illegible]

[B]enefits from Government

In answer to our enquiry as to what the Government has done in the past for the people, the replies that we obtained are instructive, and we place a few of them before the reader for his delectation.

1. *Punaj*—"Bored a well twelve years ago."

2. *Moraj*—"Gave Rs. 400 for a school building 25 years ago and subsequently Rs. 150 for repair."

3. *Valotri*—"Built a bridge in 1900 at a cost of Rs. 1[illegible] Now it is useless."

4. *Bhala[illegible]*—"Tried to bore a well twelve years ag[o but] failed."

5. *Gobhalaj*—"School built 46 years ago. One well repaired at Rs. 100."

6. *Bherai*—"One trough and well repaired before 1900. No help other than this since."

7. *Vadala*—"One well sunk [illegible]5 years ago."

We may mention that the above villages might very well congratulate themselves on having obtained that much help from the Government, as many others have not received even this amount of attention.

As we have repeatedly me[ntione]d, the Government seems to have done n[ext to] nothing

in these villages. What little h[illegible]as been rendered to the people has been given through the Local Boards, which have provided schools wells, tanks and pacca roads. The resources of these boards are limited, and in many cases they are unable to function properly for lack of adequate financial support. But one does not feel that their budget is properly drawn up when large amounts are being spent on roads, while they have to curtail expenditures on schools and wells. In several villages, where the untouchables have no provision for drinking water, a few hundred rupees spent on a well would relieve the distress of m[illegible] Of course, the pacca roads are necessary [illegible] the Collector's motor car on his tour, and [illegible]other needs are subordinated to the comfort of a government servant. The Local Board officers are usually not men who have the strength to stand up against the Government, where necessary. Hence, [illegible]policy of the Local Board is much influence[illegible]y the officials.

The Government usually justify their existence by bringing forward the benefits they have conferred on the country by building railways, good roads, spreading education and providing postal facilities. Even accepting this criterion of "good government," we may mention, the foll[illegible]facts to show what claims to such "good[illegible]ment" the present administration

can ma There is not a single railway station in this taluka. There are only two metal roads running east to west, and north to south and most of the villages are to be reached after miles of mud and sand tracks. Practically, all the schools are provided for by the Local Board and there is only one post office with a few sub-offices for an area of 216 sq. miles and a population of about sixty thousand.

Migration

In this taluka emigration does not cause a problem very few have gone to Africa to earn a li but these may be counted on one's fingers ds. A small number of Dharalas and others ha gone to Ahmedabad to work in mills, but most of them have gone only temporarily because of hard times. A few persons have gone to the adjoining talukas in the police service. But, otherwise, the population shows no migratory tendencies bility and is firmly attached to the soil.

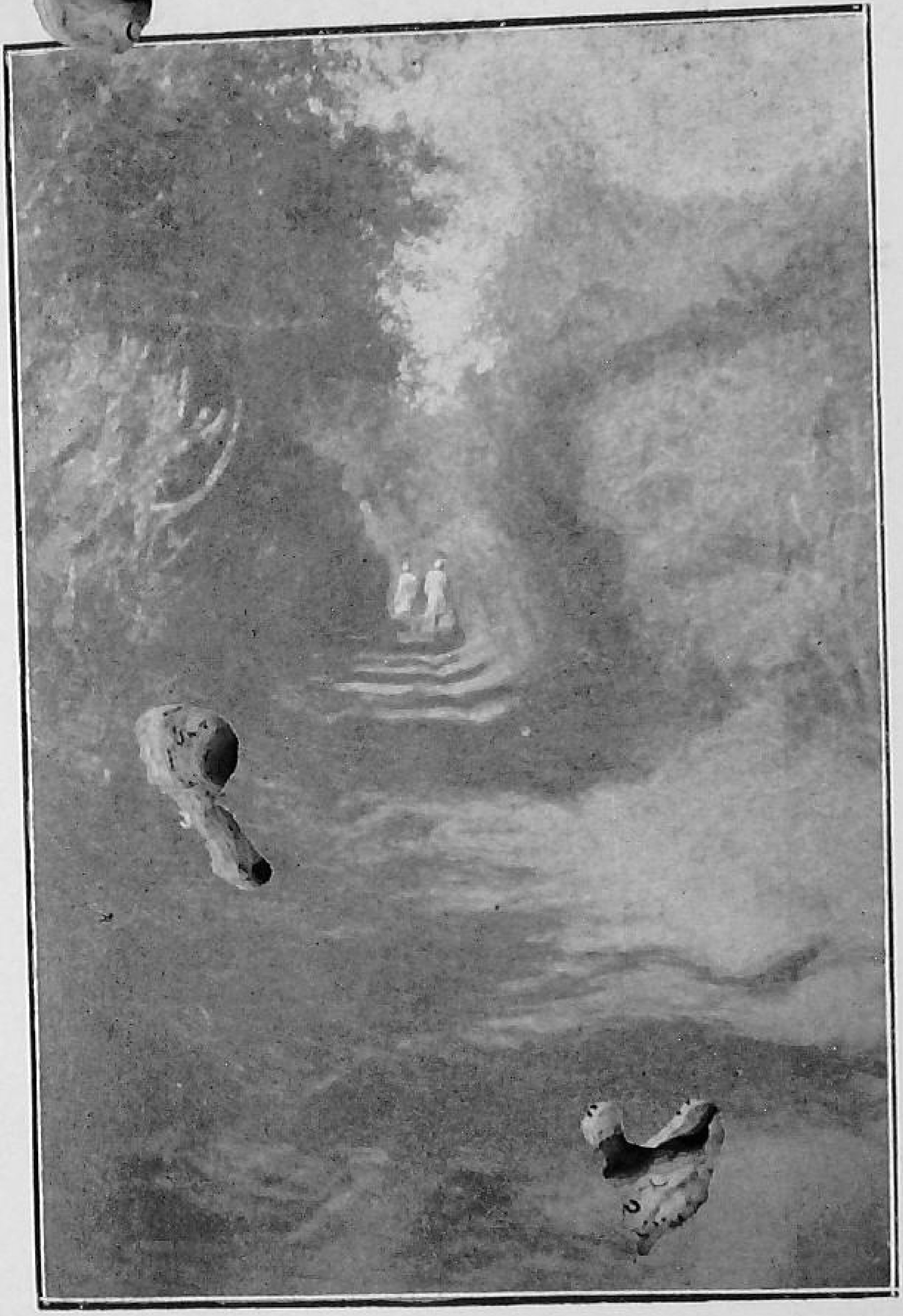
Imports

Statistics are not available to enable us to accurately gauge the imports into this taluka. But from what figures we have been able to obtain from personal enquiry and using such figures as the base for the whole taluka, we arrive at the following.

	Rs.
Cloth, (mill and foreign)	5,77,500
Kerosene,	44,250
Sugar,	43,875
Ironwares,	39,375
Salt, for people & cattle,	34,500
Tea,	25,687
Metal Vessels,	20,062
Liquor,	19,687
Glassware,	18,525
Cigarettes etc,	9,900
Match-boxes,	9,075
Zinc-sheets,	9,000
Ropes etc,	8,625
Toys, umbrellas etc,	7,800
Opium,	1,762
Medicines etc,	750
	8,70,373

Although these figures are but estimates, yet, they show that by far the principal item of import is [illegible]. If these villages can supply themselves w[illegible]h their own clothing, the annual income per head could be easily increased by at least 10 rupees. This is a 70 per cent increase on the per capita income. As the production by them of cotton and cloth will decrease under-employment and will provide a subsidiary industry, it will be doubly beneficial. Buying cloth fro[illegible] made necessarily implies exporting grains an[illegible]mer products of the taluka in

XII



THE ROAD TO BHALADA

This is a typical communication between villages forming loose mud tracks, overgrown with shrubs after the monsoon, at many points impassable as even the little needed to keep these open is beyond the means of the Local Board who are persuaded to spend what is available on Motor Roads.

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payment. This will also be stopped by local cloth production. Thus the cult of 'Charkha' will be a triple blessing to this taluka.

It would appear from the above list, that either the whole or a large part of the following expenditures are avoidable.

	Rs.
Cloth	5,77,500
Kerosene	44,250
Salt	34,500
Tea	25,687
Liquor	19,687
Cigarettes	9,900
Zinc	9,000
Opium	1,762
	7,22,286

In our chapter on 'Health', we have already pointed out the possibility of substituting castor-oil for Kerosene. If this could be done, it would mean an enormous saving of Rs. 44,000 to this taluka.

As regards salt, although the commodity itself is a necessity, the figure (Rs. 34,500) for it is high because of the salt monopoly and the price could be easily decimated if the salt duty is removed.

The tea-drinking habit is a commendable habit, where it is a substiute for liquor as a habitual drink, but, where it replaces milk as a food, there is a loss of nutritive value. People

are satisfied with the light stimu and sell their milk to the dairy which is a serious matter in an ill-nourished country.

It requires very few words from us to condemn the items of liquor and opium (Rs. 21,449). Imported cigarettes are rolled up in paper and they are considered more injurious than the indigenous "*bidi*". Whatever we may have to say against the tobacco habit, there is no need at all to import this commodity. Most of the villages produce tobacco for their own consumption.

In our chapter on "Industries" while dealing with brick and tile ng we have already dealt with the problem of c rrugated sheets. We need here only mention, t t our estimate is considerably lower than what actual figures, if available, would reveal. Thus we see, that out of an expenditure of 870 thousand, the bulk of it—amounting to about 680 thousand—could well be ed. What is necessary in such cases is ued education of public opinion and sustai propaganda by village workers.

A great many of these articles are foreign products on which customs and excise duties are leviable, and thus, the people of this taluka are unnecessarily contributing a large amount of revenue by way of indirect taxes to the Government on avoidable expenditures.

SCHEDUIE XI

THE ANALYSIS OF FAMILIES ACCORDING TO OCCUPATIONS, LITERACY, ETC.

Limbasi Group — Table 1

Occupations

Village	Agriculture Only	Labour	Agriculture & Labour	Agriculture & Cattle	Agriculture & Service	Agriculture & Profession	Labour & Service	Unemployed	Begging	Total
Limbasi	37	1	11		1				1	51
Vasai	21		12		1					34
Sayla	13		11	6	2	1				33
Asamli	4	3	6	5	1	1	2			22
Palla	11		6	5						23
Punaj	10	1	18	4	2	1				36
Kunjra	6		5		1			1		13
Adeva	12		7			2	2			23
Valotti	8	1	6	1					1	17
Motaj		1	11	9	1	2		1		27
Chikhalia	8		2	3	1	2				16
Pariaj	6		3			1				10
Zichka	15	[illegible]	6	5		1				27
Khanpur	23	4	[illegible]		1	1				31
Marala	17		5		1	1				24
Tranja	27	2	9		2	6				46
Bhalada	9		18			5				32
	229	13	138	38	14	25	4	2	2	465

Limbasi Group—Table 1

	Education						*Workers (field)*						
	Literate			*Illiterate*			*Above ten*			*Non-workers*			
Persons gone utside	Male	Female	Total	Male	Female	Total	Male	Female	Workers	Below 15	15 to 60	above 60	Total
2	58	17	75	88	94	182	51	70	120	84	44	9	137
1	12		12	95	96	191	64	62	119	69	7	8	84
	6		6	69	73	142	53	47	87	47	13	1	61
	7		7	51	48	99	37	35	53	29	22	2	53
	7	1	8	[illegible]	71	131	38	43	69	56	13	1	70
	16		16	[illegible]	70	131	42	49	82	54	5	6	65
	8	3	11	20	23	43	16	21	27	13	10	4	27
	20	1	21	45	41	86	30	30	55	37	12	3	52
	5		5	49	42	91	34	31	55	28	10	3	41
1	28	2	30	47	65	112	29	51	58	52	23	9	84
	27		27	37	48	85	20	29	45	44	19	4	67
	19		19	12	28	40	6	14	21	24	11	3	38
	25	1	26	63	67	130	38	[illegible]	[illegible]	62	25	6	93
	35	1	36	42	58	100	27	[illegible]	64	48	21	3	72
	12		12	44	42	86	32	[illegible]	58	24	11	5	40
	50	11	61	63	102	165	43	85	98	77	39	12	128
	24		24	78	78	156	50	46	89	68	16	7	91
4	359	37	396	924	1,046	1,970	610	733	1,163	816	301	86	1,203

Navagam Group—Table 2

Occupations

Villags	Agriculture Only	Labour	Agriculture & Labour	Agriculture & business	Agriculture & Service	Agriculture & Profession	Agriculture & Menial	Begging	Total
Navagam	41		7	2					50
Pinglaj	2		12						14
Kathwada	3		11						14
Chanindra	8		8						16
Dharoda	9		19		1		5		34
Pansoli	11		5						16
Gobhlaj	25		4						29
Bherai	18		10						28
Dhathal	6	1	7			2			16
Chitrasar	7		3			5			15
Vadala	4	3	6			1			14
Nayka	46	2	23		2	3			76
Kanera	18	[illegible]	[illegible]						25
Radhu	35	[illegible]	[illegible]			6			45
Rasikpura	11	[illegible]	[illegible]						17
Kaloli	9	2	6			5			22
Chandana	10		10			1		1	22
Mahelaj	16		3						19
Shetra	2	1	3			2			8
Vavdi	8	2	2						12
	289	[illegible]	[illegible]4	2	3	25	5	1	492

Navagam Group—Table 2

Persons gone outside	*Education* Literate Male	Literate Female	Literate Total	Illiterate Male	Illiterate Female	Illiterate Total	*Workers (field)* Above ten Male	Above ten Female	Workers	*Non-workers* Below 15	15 to 60	Above 60	Total
1	74	21	95	51	81	132	28	62	88	70	61	8	139
				43	34	77	28	20	45	25	3	4	32
				45	42	87	31	29	56	29	1	1	31
	5		5	34	32	66	23	24	47	16	7	1	24
	12	2	14	86	72	158	62	52	90	62	17	3	82
	3		3	[illegible]	31	57	8	23	40	16	1	3	20
	21		21	45	69	114	33	54	53	43	31	8	82
	4		4	59	70	129	48	52	77	36	17	3	56
	8		8	34	26	60	20	17	38	22	8		30
	8	1	9	20	31	51	14	24	29	21	7	3	31
	8	1	9	25	35	60	14	25	29	26	13	1	40
	51	2	53	142	170	312	96	125	197	120	38	10	168
	8	1	9	50	48	98	37	3[illegible]	[illegible]	35	5		40
	41	3	44	67	94	161	42	7[illegible]	[illegible]	66	43	8	117
1	6		6	36	38	74	21	[illegible]	[illegible]3	32	14	1	47
1	23		23	35	45	80	25	34	47	36	16	4	56
1	4		4	45	53	98	31	36	46	39	15	2	56
	9		9	52	40	92	38	34	42	30	25	4	59
				19	13	32	16	10	25	6	1		7
	1		1	29	25	54	23	22	36	14	2	3	19
4	286	31	317	943	1049	1992	638	776	[illegible]	[illegible]4	325	67	1136

Matar Group—Table 3

Village	Agriculture only	Labour	Agriculture & Labour	Agriculture & Service	Agriculture & Profession	Agriculture & menial	Agriculture & Cattle	Total
				Occupations				
Matar	7		8	1	3			19
Traj	12	1	3		3			19
Piparia	4		7		1			12
Koshial	4		2					6
Machbhial	11	1	7					19
Khadialalapura	9		3		4			16
Vasna	10		3	2	[illegible]			18
Sokhda	9	3	4	1				17
Undhela	8		1		1			10
Vansar	8		2			3		13
Sandhana	8		5	2	1		3	29
Radhwanaj	10		2		2			14
Antroli	3	[illegible]	[illegible]					15
Khandhli	12				1			13
Lawal	5		5		3			13
Maliataj	4		1					5
Alindra	14		5		1			20
	138		80	6	23	3	3	258

Matar Group—Table 3

Persons gone outside	Education: Literate Male	Literate Female	Literate Total	Illiterate Male	Illiterate Female	Illiterate Total	Workers (Field) Above ten: Male	Female	Workers	Non-Workers: Below 15	15 to 60	Above 60	Total
2	27	5	32	30	43	73	22	32	43	46	10	6	62
	21	2	23	28	31	59	20	24	33	24	18	7	49
	6		6	29	23	52	16	14	32	22	3	1	26
	6		6	10	12	22	5	10	13	10	4	1	15
	5	2	7	[illegible]	45	91	32	35	60	28	5	5	38
	13	3	16	[illegible]	37	68	17	21	29	44	10	1	55
1	22	3	25	[illegible]	31	49	14	26	36	17	16	5	38
	16	1	17	27	31	58	18	24	43	18	9	5	32
1	19		19	10	18	28	7	11	18	17	11	1	29
Calcutta													
	20		20	18	34	52	12	20	28	25	18	1	44
1	25		25	48	69	117	[illegible]	[illegible]	[illegible]	53	26	6	85
	19	2	21	22	35	57	[illegible]	[illegible]	[illegible]	28	13	3	44
	6		6	39	37	76	[illegible]	[illegible]	50	28	2	2	32
4	17	4	21	14	17	31	9	14	21	18	10	3	31
Africa													
	11		11	30	23	53	21	17	30	19	9	6	34
	12	1	13	8	15	23	5	10	16	14	4	2	20
2	27		27	28	37	65	17	30	34	26	25	7	58
11	272	23	295	436	538	974	287	38[illegible]	[illegible]	437	193	62	692

CHAPTER XII

CONCLUSION

On the whole, we find, the economic state, as shown [illegible] the fact and figures concerning the families examined by us and described in the preceding chapters, is deplorable. The per capita income is barely 7 pies per day. A general computation of the national income made by Baring and Barbour in 1881 gave the figure of Rs. 27 per annum, that is 1 anna 2 pies per day. Even witho[illegible]or rise in prices, the income of the [illegible]s taluka is only half of the national inc[illegible]mated in 1881. In 1901, Lord Curzon had the per capita income calculated for all India and that worked out to 1 anna 4 pies per day without allowing for increase in the price level. The discrepancy between the government calculation and ours will be accounted for largely by the fact that our average is arrived at purely fro[illegible]ncome of

village people, while the governmen[illegible]culation bring into account the income of millionaires as well, and to that extent it is an overstatement of the income of the masses. In any case, the computation of the income for all India has to be, at its best, only an estimate, while, our figures are obtained from actual budgets, and therefore closer to facts. There have been other computations later than the two referred to above which place the per capita income in the neighbourhood of 4 to 5 annas per day. But these are largely invalidated by the enormous fluctuations in the purchasing power of money since the world war and whi[illegible] make them difficult of comparison.

In other parts of the world when people labour with such low production the Government support the sufferers with doles to keep them from starvation. But in India, the Government taxes them [illegible]e heavily and drives them into the [illegible] of indebtedness. Little is done by th[illegible]nt to help the people by advice or exp[illegible]. The Agricultural Department is hardly known in this Taluka. Apart from this, the department itself cannot be said to be organised with a view to giving practical help to the farmers.

Even in places where extensive cultivation could be [illegible]ouraged by giving the people waste la[illegible] of taxation, the Government is

not wi[illegible] to do so. This being the case, there can be no hope of any help for intensive cultivation by soil surveys, supply of manure, seeds etc.

The other department of Government to which, one would imagine, the farmers could turn for help, is the Irrigation Department. But this department is no better than any of the other departments. The one idea seems to be to increase the Himayat rates and charge people for water they have not received. One may almost call this department a 'Dry Irrigation' department as many of the tanks it possesses [illegible] but dry fields rented out for cultivation.

It is often stated that the moneylenders and usurers of the type of Pathans and Sindhis have been instrumental in reducing the farmers to the present state of indebtedness. To us, the Government's contribut[illegible] to the poverty of the masses seems to [illegible]nable as compared with the not[illegible] in [illegible]ods of the Pathans. We have been [illegible]istably to the conclusion that a line of policy persistently adopted by the Government in their Land Revenue administration could not but have given birth to a class of usurers of the type found in this taluka. We must remember that the Pathan is giving something in return and is performing a necessary funct[illegible] society,

however exorbitant his price may be, while, the Government gives nothing in return for the money it extorts from the people. Therefore, from the pure economist's point of view, the Pathan is a producer in comparision with the Land Revenue Department.

Not content with themselves fleecing the people they have also introduced another quasi-Government Department under the pretentious title of the Co-operative movement. It may be, the reference to co-operation is to the Government rather than to the people, as the result seems to indicate that the societies have conspired with the Governmen[illegible] heartlessly extract the "pound of flesh" from the people who have practically no knowledge of the management of such societies and their officers and organisers care more for government favour than for the welfare of the people.

The bulk of [illegible] families are unoccupied during a[illegible] of the year. Similarly, their bullo[illegible]so without employment. Until our far[illegible]ave their time fully occupied, it is a danger to national welfare. Apart from the economic aspect, enforced idleness leads to deterioration in character. What we need are subsidiary industries that the worker in the field can engage in at odd moments, [illegible]out such occupation interfering with his [illegible] source of income. One such

subsidiary industry is spinning. The amount of income obtained from this occupation is not a consideration at all with most people, as, whatever is obtained in this way is not obtained by withdrawing time and labour from a more profitable occupation, but is the result of converting idle moments to use.

It would seem that our farmers would do well to aim at being self-contained rather than aspire to enter international markets. They should produce food grains, and fodder and cotton for home consumption instead of raising money crops for export trade. By so doing, they would ensure the necessary food and subsistence while restricting attractions for squandering away part of their production on wasteful imports. As it is, unhusked food grains produced by Limbasi group of villages amount to about to 13 maunds per head, in Navagam group, to 22 maunds and in Matar group, to 12 maunds per head. Excepting for Navagam group, we may say that the other two groups produce a little over half of what is required for their own consumption. This being so, there is no justification whatsoever for importing manufactured luxuries into the taluka.

If Matar taluka is to progress, the people will have to make a determined effort to get rid of idle moments, and improve their methods of cultivation [illegible] avoiding

all waste, and utilising all forms of manure and preserving their seeds with care, and to refrain from unproductive expenditures until they have enough means to educate their children and live decently. The Government, on its part, should cease to attempt to draw blood out of stone and turn its attention to finding ways and means of helping the people out of 'the slough of despond' in which we find them today.

We trust, the attempt made in this survey to obtain a reliable picture of the conditions in this taluka, will bear fruit by drawing attention to the needs of the people and that it will not be long before the situation is ameliorated.

RECAPITULATOR

We give below extracts of suggestions and recommendati[illegible] from the preceding chapters.

[illegible]tailed Surveys

Based on the findings of our survey, we trust, more detailed and concentrated enquiries will be carried out in limited areas in regard to specific subjects. *(p. 2)*

Waste Lands Fre[illegible]

Waste lands should be [illegible] in [illegible] cultivation free of taxation till such areas [illegible] profitable. *(p. 7)*

Introduction of Improved Implements

If implements could be devised to suit local conditions, and turned out by local manufacturers at a price which will bring it within the reach of the average farmer, if manu[illegible] could be made more efficient, if further i[illegible]ation is

made possible, and if present scattered small holdings could be consolidated, then experiments with improved implements would come within the range of practical agriculture. *(p. 12–13)*

Tariff Policy

A rebate of Import Duty on any iron or steel that can be shown to have been used for the manufacture of agricultural implements or machinery should be granted. *(p. 13)*

Selection of Seeds

To improve agriculture, one of the main efforts should be to improve seeds by a process of selection and experimentation. *(p. 14)*

Avoidable Labour Charges

Apart from the need for subsidiary industries, we would also recommend that the families that employ hired labour, but which have no occupation for the members of their own fam[illegible] cease to be "gentlemen farmers," [illegible]ld work on the land themselves. [illegible] *(p. 20)*

A Soil Survey Needed

We do not feel any useful purpose would be served by using any kind of chemical manure without a knowledge of the specific requirements of the soil. Such information can only be available after a scientific soil survey has been made. *(p. 27)*

Night Soil: Portable Latrines

It would be possible to utilise the night soil as manure, if a convenient method could be devised to handle the material. It would be more desirable to devise an arrangement which will minimise the transport of night soil. It may be possible for villagers to go out into their own fields to answer calls of nature, digging pits and covering up with earth after each call, so that flies and insects do not get at the manure and the properties of the manure may not be lost by exposure. It is possible, for about Rs. 5, to construct a portable cabinet with 4 sides of matting to be placed in the fields to provide privacy. *(p. 36–37)*

Village Latrines

For those to whom this is not feasible, each village should provide village latrines, and the manure buried, and annually such manure could be sold to the agriculturists and the proceeds from such sales could be used in maintain the Bhangis and the carts. *(p. 37)*

Dry Parts of "Irrigation Tanks" to be Returned to Cultivators

Where lands belonging to the Irrigation Department are not capable of being used as reservoirs for water, such lands should be returned to the cultivators. *(p. 39–40)*

Enlarging the Capacity of Tanks

If the bunds of the tanks are raised, the capacity of the tanks could be increased to irrigate more lands at Jhichka, Moraj and Chikhalia. (*p.* 40)

Locks on Drainage Canals

If suitable locks could be constructed at different stages of the drainage canals, such arrangement, while preventing scouring, will also conserve the water of the taluka and raise the subsoil water level. (*p.* 41)

Tanks to be Filled

With a little care in di[illegible]ng water into exising tanks it would appear t[illegible] us possible to bring under cultivation area[illegible]ow lying waste, and to use land at present under poor crops for more valuable crops, such as rice. (*p.* 47)

Brackishness of Well Water to be Lessened

If th[illegible] level [illegible]ubsoil water could be raised by conserv[illegible] [illegible]ater of this taluka even this brackishness [illegible] diluted. (*p.* 48)

Persian Wheel

If this device could be adapted to the strength of our bullocks it may prove satisfactory. (*p.* 50)

Distribution of Water

It wo[illegible]d seem to us far more conducive to the welf[illegible] [illegible] the people, to give an adequate

supply of water to a limited area than to distribute the same quantity of water over a wider range and let all the crops suffer. *(p. 53)*

Co-operative Selling

In the sale of products, it may be possible to obtain better prices if the bargaining power was strengthened by an organisation amongst the farmers, to collect the produce of each village, grade them and sell them in large quantities. *(p. 56)*

Barter

Until education spreads amongst the masses, it would be much better for all concerned, if transactions were to take place in kind, rather than in cash. *(p. 57)*

Potter

Brick and tile making to be encouraged rather than zinc sheets. *(p. 62)*

Payment in Kind

Salvage of the old [illegible] payment to artisans and self-contained [illegible]s. *(p. 64)*

Upkeep of Bullocks

If under-employment of bullocks could be tackled the expenditure under this head could be considerably lessened. *(p. 73)*

Villages as Units of Taxation

If strong Panchayats could be organised in villages, and the village, as a whole, could be

assessed to Annawari valution as a unit, leaving it to the Panchayat to distribute the amount of the revenue assessed on the village according to the conditions of the crops of each farmer, the injustice in the present system could be greatly rectified. *(p. 80)*

Revenue Due Dates

The instalments should be fixed according to the convenience of the farmers. *(p. 83)*

Tax in Kind

It may be possible to avoid borrowing for payment of land revenue by taking payment of tax in kind, although this will throw an additional burden on the administration. *(p. 83)*

Tax to be Returned to the P[illegible] as Services

The revenues drawn from the villages, at least by way of direct taxation, should be spent for the benefit of the villages themselves in expenditures such as elementary schools, sanitation, m[illegible]d, etc. We are also justified in demanding a reduction in any Government expenditures, such as salaries to administrative officers, military etc., which should be paid for out of the funds drawn from the villages by way of indirect taxation. *(p. 90)*

Tax to be based on Actual Income

The only way we can satisfactorily deal with this danger of excessive taxation amounting

to capital levy would be to make sure that the tax is paid out of net income. This can be done by giving an option to the farmers of electing to be assessed to income tax instead of being subject to land revenue, as is done in England. *(p. 89)*

Land Revenue Code to be Repealed

If the. system of assessment and collection of land revenue in other parts of India is anything like what it is in Matar Taluka, it is high time that the administration of this department should be completely remoulded, and the Land Revenue Code effaced from the Statue Book. *(p. 95)*

Central Banking in the Interest of the Farmers

To lower the rate of interest it is necessary to have an organization which will draw surplus capital from the cities and make it available to the farmers. *(p. 105)*

Social E[illegible]

Borrowing for social expenses should be stopped. *(p. 115)*

Burden of Debt to be Lightened

If a scheme could be evolved by which, the usurers could be paid oft and farmers relieved, it would add an inducement to increase production. *(p. 116)*

A Survey of Indebtedness

A committee of inquiry should be appointed to find ways and means of solving this problem of indebtedness. *(p. 116)*

Castor Oil Lamps

We would rather suggest as a substitute for the open-wick kerosene lamps the old type castor oil lamps, at least, until such time as the farmers can afford to buy proper lanterns or lamps. *(p. p. 119–20)*

Bath Rooms

A small enclosure could be built into their houses as bath-rooms or the villa[illegible] Panchayat should provide a number of cubi[illegible]es near the well, where people could bathe [illegible]iently, and the water from such public bath rooms can be utilised for watering banana plantations.

(p. p. 120–121)

H[illegible] Habits

Village s[illegible]uld have time allowed during the school hours to teach the children how to bathe, clean their teeth etc. *(p. 121)*

Midwives

If the child mortality rate is to be lowered, adequate provision has to be made for properly trained midwives and satisfactory sanitary arrangements [illegible] the villages must be ensured.

(p. 124)

Cattle Sheds

The farmers should not keep their cattle too near their dwellings. (*p.* 126)

Cows Advocated

It would certainly be in the interest of the cultivators, in the long run, to maintain good cows, and feed them well, as these supply both milk for food, and bullocks for draft animals. (*p.* 126)

Stud Bulls

The provision of good breeding animals should be the care of the Government department detailed [illegible] look after the interest of the agriculturists. (*p. p.* 126–127)

[illegible]rabadis

Food grains not to be used for feeding birds. (*p.* 131)

Brahmins [illegible]seful

If some duty, such as [illegible] in primary schools, were added to the ordinary duties of their calling, something may then be said in justification of the burden they throw on the village. (*p.* 132)

Local Boards to Concentrate on the Needs of the People

But one does not feel that their budget is properly drawn up when large amounts are

being spent on roads, while they have to curtail expenditures on schools and wells. (*p.* 134)

Postal Facilities

If the country is to advance, every village should have reasonable facilities of communication with the rest of the world. (*p.* 132)

Charkha

If these villages can supply themselves with their own clothing, the annual income per head could be easilly increased by at least ten rupees. (*p.* 136)

Avoidable Expenditures on Imports

Of cloths. kerosene, salt, tea, liquor, cigarettes, zinc sheets and [illegible] (*p.* 137–38)

Food Grains

The Farmers should produce food grains, fodder and cotton for home consumption instead of raising money [illegible] for export trade. (*p.* 143)

APPENDIX A

RURAL ECONOMIC SURVEY QUESTIONNAIRE

Name of the village
Name of the head of the family
Caste Religion
Chief occupation
Subsidiary occupation

State 1. If it ...rried on at home, how much of the year is spent on su... occupation ?

2. When there ... work in the field, does any member of the family ... village to earn a living ? How long does he remain out ?

If any members of the family have gone out to earn, where have they gone ?

What are they doing ? W... ...ittances are received from them ?

II. Number of persons in the family :

Serial No.	Male or Female	Age	Field work	Literate	Knowledge of Spinning and Carding	Unmarried Married, Widower or Widow	Remark

(Those who know how to read and write a letter should be considered literate. Note those who know how to keep their accounts.)

III. Land

A.

Owned	On lease	On cropshare	On mortgage	Let out on lease	Let out on cropshare	Mortgaged	Fallow land	Grazing land	Land under cultivation.	How much of the land in village?	How much of it outside the limits of the village?

1. State reasons for leasing
2. The terms of cropshare:

Who pays the land revenue? Who provides seeds? While dividing the produce is the actual quantity of seeds deducted or anything extra taken? Are only the main crops divided or also fodder and litter? Who decides what crops should be raised on the land? Does the owner render help to the cultivator?

B.

Nature of Holding	Rice land	Dry land	[illegible] subject [illegible] tra [illegible] water rate	Land under well irrigation	Land under canal irrigation

Note: State in column 1 whether the land is owned, leased, held on cropshare, on mortgage etc.

C.

In how many fragments is the land cultivated divided? Give also the area.

Serial No.	Rice	Reason for fragmentation	Serial No.	Dry	Reason for fragmentation

IV. Land Revenue and Taccavi

1. Has land revenue been paid punctually? What coercive processes, if any, have been issued during the past five years for collecting land revenue?

2. How is the money for land revenue obtained? Is surplus produce sold? Is it paid out of earning from causal labour? Is the money for it borrowed? Has any money been borrowed for this purpose from Co-operative Societies?

3. What (a) remissions, (b) suspensions, of land revenue, have been granted during the past five years? Why were they granted in each case?

4. How much taccavi has been taken from the Government during the past five years? When and why? (For sinking wells? [illegible]rchase of cattle? etc.)

5. Have the [illegible]talments of taccavi been paid regularly? How were they [illegible]paid? Were any coercive processes necessary? [illegible] any at tachment and sale of property?

6. How much of the Government taccavi remains unpaid at present?

V. Ana[illegible] of Land [illegible] Crops raisd:

		Owned	Leased	Taken on crop-share	Given on crop-share	Mortgaged	Total	Area occupied by margins left waste
Name of Crop	Area							
	Quantity							

VI. Cattle :

Kind	In the beginning of the year	Bought	Born	Sold	Died	At the end of the year

Note: In column No. 1, state bullock, cow, buffalo, etc.

(a) Dung-cakes prepared ? quantity ? used ? sold ?

(b) Cart-loads of manure obtained ? quantity ? used ? sold ?

VII. Income & Expenditure

Income

1. Sale of agricultural produce *(price of goods given in payment of debt should be considered as cash income).*
2. Proceeds from dairy produce
3. Hire of carts and bullocks
4. Earnings from personal labour
5. Sale of mangoes, vegetables [illegible]
6. Sale of babul trees
7. Sale of manure
8. Income from subsidiary occupation
9. Remittances from [illegible] member of the [illegible]ly earning outside the villag[illegible]

Expenditure

(a) Agriculture

1. Maintenance of bullocks
2. Hali (agricultural assistant)
3. Labour (ploughing, sowing, weeding, picking cotton, cutting crops, cutting grass, threshing, watering, watching etc.)
4. Seed
5. Manure
6. Repairs of implements
7. Rent

8. Land revenue and water rate

(b) Dairy

1. Cotton seeds
2. Litter
3. Grass
4. Salt
5. Expense at the time when cow or buffalo calves

(c) Personal

1. Food-grain, milk, *ghee*, oil, salt, spices, *gur*, sugar, tea etc.
2. Clothes *(if wearing Khaddar, inquire of his past expense).*
3. Shoes
4. Bedding
5. Vessels—earthen, metal
6. Fuel—K[illegible]ene, etc.
7. House rep[illegible]s
8. Medicine
9. Publi[illegible]
10. Social [illegible]enses
11. Tobacco, opium, liquor etc.
12. Expense for educati[illegible] children, newspapers, books etc.

(d) Interest

(e) Payment of debt in kind

(Note: Take into account all expenses incurred in kind.)

VIII. Indebtedness

1. Analysis

Moneylender	Co-operative Society	Taccavi	Without interest	Total	Secured	Unsecured

2. History

Date	Entertainments		Houses	Lands	Wells	Agricultural purposes	Failure of monsoon & other calamities	Others to be specified
	Marriages	Deaths						

3. How does he propose to pay off his debt?

4. How long has he been a member of the Co-operative Society?

5. What deposit has he to his credit?

6. If a member of the Co-operative Society for five years, state:

(1) Amount of old debt repaid by borrowing from the society.

(2) Amount of old debt repaid [illegible] saving.

(3) Land redeemed by borro[illegible] Society.

(4) Land redeemed by his own saving.

(5) Land bought and for [illegible] much?

(6) Land taken on [illegible] and for ho[illegible] ch?

(7) Land so[illegible] Society [illegible]

(8) Land mortgaged and w[illegible]?

(9) Has any property been attached or foreclosed by the Society?

(10) Amount of debt due to the Society repaid by borrowing from moneylender.

IX. Agricultural dead Stock & its value (cart, plough etc.)

X. What instruments of home-industry does he possess?

XI. Large [illegible]penses incurred during the past ten years—

e. g., On marriages? On deaths? Building houses? Ornaments etc.?

XII Large sales during the last ten years—

e. g. Of land? Of house? Of ornaments etc.?

General Questions Concerning Village as a Whole

I. Crops and Cultivation

1. Has the cultivation of money-crop, tobbaco etc. increased in the last ten years? With what effect?

2. What crops are manured? How much manure is applied per *bigha* for each crop? Price of one cart load of farm-manure. Cost of folding 100 goats or sheep for one night. Price of one cart load of manure of goats and sheep.

3. State for the full year, for a unit of land ploughed by one pair of bullock[illegible]any persons will be required, and for how m[illegible]ach month to perform the various agricultura[illegible]perations to be carried out that month?

4. Have you anything to [illegible]bout the advantages and disadvantages of [illegible]use of im[illegible] implements?

5. Have any [illegible]d varie[illegible]sed in the village? If so whence and how have they been obtained?

6. What help do you get from the Agricultural Department? In what way has the village availed itself of the services of that department?

7. Where is the nearest demonstration (Government) farm? Have any demonstrations been made in or near the village by the Agricultural Department? Has the village derived any advantage from such demonstrations?

8. For which of the crops is rotation necessary?

II. Canal and Well Irrigation

1. What are the crops raised by canal or well irrigation? How many times is each crop watered? At what stages i it watered?

2. Is canal irrigation received in both harvest (kharif and rabi)? In the rabi is canal water obtained for sowings only or are subsequent waterings also possible?

3. Is canal water available in sufficient quantity and at the required times? Have you any suggestions for increasing the supply and improving the service?

4. Have you to pay additional rates for water? On what basis are the rates fixed?

5. Give the number of wells useful for cultivation. Give the number of wells in use now and ten years ago.

6. How do floods of neighbouring rivers affect cultivation?

III. Land Revenue and Taccavi

1. Are the dates fixed for payment of instalments convenient? If not, what other dates would you suggest?

2. Is taccavi popular? D[illegible] proper use of taccavi? If taccavi is not popular, wh[illegible]e the reasons?

3. Can you suggest any improvements in the administration of taccavi?

4. Does the b[illegible] ays g[illegible] whole amount sanctioned by [illegible]vern[illegible]?

IV. Money-lending

1. Causes of indebtedness of villagers?

2. Do moneylenders encourage indebtedness?

3. What are the rates of interest charged by moneylenders? What is the method of calculating interest?

4. Do they give full amount of the loan? Do they allow interest on the amount credited in the current account?

5. Which form of borrowing is most prevalent in the village—*i. e.*, form moneylenders, Co-operative Societies,

Government, Pathans, or Sindhis? Give an account of thei
methods and their effects upon the conditions of the people

V Market

1. How do the farmers dispose of their produce? Whor are the purchasers? How is the price fixed? If produce is given as a payment of debt, does the farmer get proper value for it?

2. Is there a local market? If not, how far is the village from the nearest market? Does the farmer go there to sell his produce or does the purchaser come to the village therefrom?

3. How much of the proceeds does the farmer get? The whole or subject to commission?

4. What are the means of transport available to the farmers?

5. Are there a[illegible] retailers in the village? How many? What do they deal i[illegible]? Do they allow any credit? Give the disadvantage[illegible] purchases.

6. Are the[illegible]hich help in the exchange of goods?

VI [illegible]dustry

1. What ar[illegible]e indus[illegible]he village? *e. g.* gin, oil-mill, flour-mi[illegible]ill, da[illegible]shing, brick and tile-making.

2. What are the old and indigenous industries? Which of them have been abandoned and why?

3. What artisan classes are there? Are carpenters and blacksmiths paid in cash? What is their condition at present?

4. Are there any Chamars? Do they skin dead animals? What do they do with the skins and the bones?

5. Are there any spinning wheels working in the village? How many? Are any carding-bows working? How many? Is there any professional carder? How many looms are there How much hand-spun yarn is wo[illegible]d how much

mill-spun yarn and what quantity of cloth is produced? Where is the cloth sold?

6. What work is done by menials of the village? What are they paid? What is their condition?

7. What occupation do the 'untouchables' follow? Do they get enough work? What is their condition?

8. What facilities are there for their water supply?

VII. Miscellaneous

1. General health and cleanliness of the village.

(*a*) Disposal of night-soil etc.

(*b*) Storage of manure.

(*c*) Number and condition of wells for drinking water.

(*d*) Are there any tanks? Whom do they belong to? In what condition are they?

(*e*) How far is the nearest river from the village?

(*f*) What medical help is available? Which are the most prevalent diseases?

2. Is there any school in the village? To what stage does it teach? The number of pup[illegible] teachers; annual expenditure of the school. How [illegible] it [illegible] Where and how is the school housed?

3. Is there any liquor [illegible] within [illegible] village limits? Quantity of liquor sold [illegible] many [illegible] habitutated to taking opium?

4. What are the means of transport. How far is the railway-station from the village? How far is the *pacca* road? What has been the effect of bus service and railways on the village conditions? What postal facilities are available for the village?

5. Are there any stud bulls or he-buffaloes? What use is made of calves, whether there are any pasture lands; is the grazing available less than before? What is the arrangement for treating cattle diseases?

6. What is the average of births and deaths in the village during the past five years? What is the infant mortality?

7. Has the village suffered during the past ten years from calamities such as famines, flood, frost, locust etc.? How have the people withstood these calamities?

8. During the past ten years, how many families have gone away from the village? Where and why?

9. Is there any village fund? How is it managed? What are the local rates in the village? Are there any caste Panchayats? What are the occasions for mutual co-operation? How do people co-operate among themselves?

10. How many public buildings, *e. g.* temples, mosques etc. are there in the village? What use is made of them? How are they maintained?

11. What is the burden thrown on the village by astrologers, [illegible]s, etc.?

12. Should th[illegible] Local Board spend money on *pucca* roads, schools or wel[illegible] What has been spent by the Local Board or the Go[illegible]hese in the past 10 years?

13. Wha[illegible] annual expenses an adult would require acco[illegible]ding [illegible] general standard of living prevailing in the village?

APPENDIX B

ANALYSIS OF FAMILIES EXAMINED, SHOWING CASTES AND POPULATION

Limbasi Group—Table 1

Village	*Castes* Patidars	Dharalas	Brahmins	Garasias	Moslems	Shepherds	Untouchables	Miscellaneous	Total	*Population* Male	Female	Total	Total Families of the village	Population 1921
Limbasi	27	13		1	1		4	5	51	146	111	257	472	1979
Vasai		34							34	107	96	203	55	247
Sayla		11	1	18		1	1	1	33	75	73	148	58	276
Asamli	4	8		1	1	2	1	5	22	58	48	106	105	1287
Palla	2	10			4	6		1	23	67	72	139	50	315
Punaj	2	22					1	11	36	77	70	147	68	267
Kunjara		6		7					13	28	26	54		
Adeva	9	5					1	3	23	65	42	107	71	277
Valotri		12						1	17	54	42	96	36	248
Moraj	9	2					1	4	27	75	67	142	335	
Chikhalia		2		7			1	2	16	64	48	112	38	102
Pariaj	1	5	1	2				1	10	31	28	59		943
Zichka	13	2		3				3	27	88	68	156		233
Khanpur	18	11	1	1					31	77	59	136	128	525
Marala	14	8	1	5					24	56	42	98	56	202
Tranja	17	14	4	1		1		5	46	113	113	226	160	[illegible]22
Bhalada	1	26	1		1			2	32	102	78	180	483	1522
	117	191	9	46	23	25	10*	44§	465	1283	1083	2366		

* Dheds 2; Chamars 3; Shenva 2; Bhangis 2; Tirghat 1.

§ Blacksmith 1; Shoemaker 1; Gosai 2; Potters 4; Raval 2; Charans 9; Carpenter 1; Lohana 3; Vagharis 8; Tailor 1; Barot 2; Barbers 4; & others.

Navagam Group—Table 2

Village	*Castes* Patidars	Daralas	Brahmins	Garasias	Moslems	Bar bers	Bhois	Lohanas	Untouch-ables	Mscella-neous	Total	*Population* Male	Female	Total	Total Families of the Villages	Popula-tion 1921
Navagam	35	10		1					3	1	50	125	102	227	277	938
Pinglaj		14									14	43	34	77		257
Kathwada		14									14	45	42	87		
Chanindra		12		4							16	39	32	71		286
Dharoda	1	12		3	2	3	4		6	3	34	[illegible]	74	172		[illegible]
Pansoli		15		1							16	[illegible]	31	60		
Gobhlaj	7	6			15		1				29	[illegible]	69	135	103	[illegible]
Bherai		22		5						1	28	[illegible]	70	133	90	[illegible]
Dhathal	4	9						1		2	16	42	26	68	50	341
Chitrasar	6	3	1			2				3	15	28	32	60		
Vadala	2	8		2		1		1			[illegible]	[illegible]	36	69	46	193
Nayka	17	49	1	6		1	2				[illegible]	[illegible]	172	365		1487
Kanera	5	19		1							[illegible]	58	49	107	84	463
Radhu	18	1	1	15	2	2	2				45	108	97	205	480	2073
Rasikpura	8	9									17	42	38	80	91	460
Kaloli	8	7	2	1		1					[illegible]	58	45	103	258	1066
Chandana	2	6			11	1	1				22	49	53	102	95	463
Mahelaj	2			2	15						19	61	40	101	189	1062
Shetra		7				1					8	19	13	32	103	473
Vavdi	1	11									12	30	25	55	54	262
Total	116	234	5	41	45	12	10	5	9*	15§	492	1229	1080	2309		

* Dheds 8; Chamar 1,

§ Odes 2; Potters 3; Charan 1; Raval 1; Vaghri 1; Shepherd & Gosai 2; Blacksmith 1; Kachhias 2; Mali 1; Bajania 1.

Matar Group—Table 3

Village	Castes: Patidars	Dharalas	Brahmins	Garasias	Moslems	Barot	Miscellaneous	Total	Population: Male	Female	Total	Total families of the village	Population 1921
Matar	7	6	1		1	1	3	19	57	48	105		3520
								19	49	33	82	313	1134
Traj	13	2	2	1		1		12	35	23	58	37	187
Piparia	3	8					1	6	16	12	28	274	769
Kothial	3	3						19	51	47	98	273	999
Machhial		19						16	44	40	84	131	539
Khadialapura	4	4			7		1						
Vasna	6	5	2			2	3	18	40	34	74	255	1072
Sokhada	11	5		1				17	43	32	75	186	1021
Undhela	10							10	29	18	47	325	1421
Vansar	7			[illegible]			3	13	38	34	72	168	677
Sandhana	1	7			20		1	29	73	69	142	433	1685
Radhwanaj	3	4	2	2		3		14	41	37	78	201	799
Antroli		15						15	45	37	82	200	768
Khandhli	12	1						13	31	21	52	410	1323
Lawal	2		1	7	2	1		13	41	23	64	184	631
Maliataj	2	1		2				5	20	16	36	297	1003
Alindra	18	2						20	55	37	92	580	1791
	102	82	8	16	30	8	12*	258	708	561	1269	4267	19339

* Kachias 2; Kalal 2; Shoemaker 1; Blacksmith 1; Carpenter 1; Bhoi 1; Barbers 3; Bania 1.

APPENDIX C

EXTENT OF AGRICULTURAL HOLDINGS

e 1

APPENDIX C

EXTENT OF AGRICULTURAL HOLDINGS

Village	1 to 5 f	a	w	b	5 to 10 f	a	w	b	10 to 16 f	a	w	b
Limbasi	4	12½	8		4	22¼	9	1	2	27	5	2
Vasai	3	89¼	5	1	8	59¼	20	7	11	148¾	32	14
Sayla	1	1¼	2		2	18	4	1	6	76	15	4
Asamli	5	8	3		2	16½	5	2	1	11	4	2
Palla	2	3½	4		2	11	6	2	7	93½	17	10
Punaj	3	7½	4	1	3	24	5	2	7	84½	12	7
Kunjra									1	15	1	1
Adeva	1	4	1		3	20	5	1	1	10½	2	1
Valotri									[illegible]	13	5	1
Moraj	3	7½	8	1	4	30¼	6	3	7	83½	10	8
Chikhalia	1	1¾							5	61	23	5
Pariaj					2	10	[illegible]	[illegible]	[illegible]	63½	10	6
Zichka	2	5½	10			[illegible]	[illegible]	[illegible]	1	11½	2	1
Khanpur					2	[illegible]	[illegible]	1	1	15	2	1
Marala					5	[illegible]	9	3	1	15	4	1
Tranja	3	7½	3		2	20	7	2	8	103¼	17	4
Bhalada	1	2	1		3	25¾	7	2	10	126	21	12
	29	70¼	49	3	42	305¾	89	28	75	958	182	80

f—number of families

a—aggregate area in bighas

Village	1 to 5				5 to 10				10 to 16			
	f	a	w	b	f	a	w	b	f	a	w	b
Limbasi	4	12½	8		4	22¼	9	1	2	27	5	2
Vasai	3	89¼	5	1	8	59¼	20	7	11	148¾	32	14
Sayla	1	1¼	2		2	18	4	1	6	76	15	4
Asamli	5	8	3		2	16½	5	2	1	11	4	2
Palla	2	3½	4		2	11	6	2	7	93½	17	10
Punaj	3	7½	4	1	3	24	5	2	7	84½	12	7
Kunjra									1	15	1	1
Adeva	1	4	1		3	20	5	1	1	10½	2	1
Valotri									[illegible]	13	5	1
Moraj	3	7½	8	1	4	30¼	6	3	7	83½	10	8
Chikhalia	1	1¾			[illegible]	[illegible]	[illegible]	[illegible]	5	61	23	5
Pariaj					2	10	[illegible]	[illegible]	[illegible]	63½	10	6
Zichka	2	5½	10		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11½	2	1
Khanpur					2	[illegible]	[illegible]	1	1	15	2	1
Marala					5	[illegible]	9	3	1	15	4	1
Tranja	3	7½	[illegible]	[illegible]	2	[illegible]	7	2	8	103¼	17	4
Bhalada	1	2	1		3	25¾	7	2	10	126	21	12
	29	70¼	49	3	42	305¾	89	28	75	958	182	80

f—number of families

a—aggregate area in bighas

Limbasi Group

16 to 24				24 to 32				32 to 48				48 to 30				80 upwards				Totals			
f	a	w	b	f	a	w	b	f	a	w	b	f	a	w	b	f	a	w	b	f	a	w	b
5	107	13	5	6	165½	12	7	13	504¼	28	23	13	722	44	28					47	1560½	119	66
5	100	14	9	3	81½	14	5	2	83	16	6	2	107¼	15	4					34	589	116	46
6	122¾	15	10	10	271¼	28	18	6	231¼	19	14	1	51	4	3					32	771½	87	50
3	60¼	10	4	2	52	7	4	3	130	11	6	2	99	7	4	1	131½	1	4	19	508¼	48	26
1	22	2	1	5	138	18	9	3	116	11	6	2	98	10	6					22	482	68	34
9	181¾	22	12	2	54	6	4	8	313½	24	17	3	191	8	7	1	124	1	2	36	980¼	82	52
2	37½	3	2	3	76	13	5	4	156½	9	9	1	69½	1	2	1	114	2	4	12	468½	29	23
3	55	10	5	2	59	4	4	5	205	13	13	4	263	12	13	3	288½	8	14	22	905	55	51
				[illegible]	56¼	5	4	5	191¾	13	11	4	243¼	21	13	3	281¼	11	13	[illegible]	785½	55	42
4	69	10	6	[illegible]	100½	11	7	3	108	9	7	1	48½	3	2					26	447¼	57	34
1	17	3		1	28	2	1	1	45	2	2	3	164½	8	6	3	332	7	14	15	649¼	45	28
1	21½	4	2	[illegible]	[illegible]			1	47¼	3	1							[illegible]	[illegible]	[illegible]	142¼	21	10
2	38½	5	3	[illegible]	[illegible]	5	5	6	251	13	12	12	760	27	28	1	121	1	[illegible]	[illegible]	1277	63	52
2	40	3	2	6	[illegible]	[illegible]	9	9	348¼	21	17	9	547¾	23	21					29	1130½	63	51
6	106¼	19	8	6	163[illegible]	[illegible]	11	4	158½	11	8									22	478½	57	31
5	97¼	12	5	8	214[illegible]	[illegible]	14	[illegible]	[illegible]48¾	26	23	2	123	6	[illegible]					39	1014½	94	53
11	216½	47	14	4	1[illegible]	9	4	1	41¾	2	2									30	526¼	87	34
66	1292¼	192	88	67	1830	183	111	85	3379¾	231	177	59	3487¾	189	142	13	1392¼	31	54	436	12716	1146	683

w—agricultural workers b—bullocks

(8 bighas—5 acres)

Table 2

Agricultural

Village	*Cotton*				*Grains*			
	Realised in cash Rs. as.	Given in debt Rs. as.	Kept in house Rs. as.	Total Rs. as.	Realised in cash Rs. as.	Given in debt Rs. as.	Kept in house Rs as.	Total Rs. as.
Navagam					13105-2	2089-8	20787-3	35981-1
Pinglaj					413-2	2589.12	1262.10	4265-
Kathwada	37-8			37-8	8	270	167-8	445-
Chanindra			6	6	425	893.10	1651-9	2970-
Dharoda	15	363-2		378-2	35[illegible].10	421-4	1846.10	2627-
Pansoli					15[illegible]	2038.14	970.10	3159
Gobhlaj					2686.10	2342.13	2471.11	7501
Bhe[illegible]i					[illegible]	729-8	2235-4	3834
Dhathal					[illegible]	45	309-2	429
Chitrasar	252-8	4-8		25[illegible]	[illegible]	40	653	979
Vadala	15.12	17		[illegible]			1017-4	1017
Nayka	959	[illegible]	[illegible]7	1[illegible]	4101-8	5198-4	8910	1820[illegible]
Kanera					[illegible]352	1021-6	1567-4	294
Radhu	1792	818-2	6	2616-2	1649-4	1031.10	3320-9	600
Rasikpura	232	12		244	747-2	54-6	800-3	160
Kaloli	730		74	804	928	32-8	2138.10	309
Chandna	387.12	616-8		1004-4	380	640.12	1559	25
Mahelaj	469-4	183--3		652-7	953.12	527-4	1767.13	3
Shetra	8	64		72	141-8	15	233-8	[illegible]
Vavdi	114-8	141.12		256-4	110-4	172	565-8	[illegible]
	5,013-4	2,559-3	213	7,785-7	27,741-10	20,153-7	54,234-14	102,

Note:—Income in kind is calculated at current market price of the commodities used by the farmer

Navagam Group

Non-Agricultural

Fodder: Realised cash Rs. as.	Fodder: Given in debt Rs. as.	Fodder: Kept in house Rs. as.	Fodder: Total Rs. as.	Bullocks manure Rs. as.	Cart hire Rs. as.	Total Agricultural income Rs. as.	Dairy: In cash houses Rs. as.	Dairy: Kept in house Rs. as.	Dairy: Total Rs. as.	Labour: In cash Rs. as.	Labour: In kind Rs. as.	Subsidiary occupation Rs. as.	Miscellaneous Rs. as.	Total Non-agricultural income Rs. as.	Grand Total Rs as.
30		1813	1843	272-12		38097-9	1578-12	2343-4	3922	799-8		537		5258-8	43356-1
		409-4	409-4	37		4711-12	165-8	147-8	313	663-12		160		1136-12	5848-8
		89-10	89-10	54-13	135	762-7	278-4	139-11	417-15	939-8		70		1427-7	2189-14
		625	625	49-8		3650-11	540	569-8	1109-8	267		105		1481-8	5132-3
21		990-2	1011-2	17-8	100	4134-4	1564-8	576-8	2141	1954		358-8		4453-8	8587-12
65		4[illegible]8	528-8	105		3793	579	465	1044	186-4				1230-4	5023-4
		612-12	612-12	119	120	8352-14	865-12	888-14	1754-10	725		50		2529-10	10882-8
		685-[illegible]	685-4	77-8		4597	870	528-12	1398-12	498-6		143		2040-2	[illegible]37-2
		[illegible]	[illegible]-8	54		679-10	357	231	588	505		667		1760	24[illegible]9-10
25		[illegible]	[illegible]-4	17-4		1695-12	810	400-8	1210	356		330		1911-8	360[illegible]-4
		[illegible]31	[illegible]	41-10		1422-10	757	587-10	1344-10	397-9		20[illegible]		1946-3	3368[illegible]
76	4	1996-12	[illegible]	295-6		22006-14	1240	1616-6	2856-6	1149	195	34[illegible]	23	4567-14	26574[illegible]
34-4		[illegible]	[illegible]-10	55-5	100	3619-9	666	468-15	1134-15	712-1			[illegible]-8	2034-8	5654-[illegible]
58	40	[illegible]37	[illegible]5-4	82-8	25	10660-5	1653	1437-14	3090-14	479	20	392		[illegible]119-14	14780-[illegible]
8		353-3	361-3	31-8		2238-6	731	492-2	1223-2	560	11	12	12	1818-2	4056-[illegible]
58		701	759	31-8		4693-10	1059	882	1941	447-4	28-8	1464		3880-12	8574-[illegible]
	9-8	538-14	548-6	61-5	195	4388-11	538	430-3	968-3	366-10	37-6	220-6		1592-9	5981-4
30		709-8	739-8	27-10	35	4703-6	389	341-2	730-2	258			79	1067-2	5770-8
8-8	2	77-8	88	10-8	50	610-8	80	27-4	107-4	345		84		536-4	1146-12
8		260-12	268-12	29	220	1621-12	212	88	300	159		28	100	587	2208-12
421-12	55.8	13,597-7	14,074-11	1,470-9	980	126,440-10	14,933-12	12,662-1	27,595-13	11,767-14	291-14	5,169-6	554-8	45,379-7	171,820-1

Table 3

B. S.

Agricultural

Village	Cotton: Realised in cash Rs. as.	Cotton: Given in debt Rs. as	Cotton: Total in cash Rs. as.	Grains: Realised Rs. as.	Grains: Given in debt Rs. as.	Grains: Kept in house Rs. as.	Grains: Total Rs. as.
Matar	186-15	48	234-15	130-14	73-4	1414-2	1611-4
Traj	1363	384-8	1747-8	586-8	153-8	1722-14	2462-14
Piparia	358	193-8	551-8	317	151-10	618-15	1087-9
Koshial	361	90	451	66	113-4	531-8	710-12
Machhial	36	135	171	15-8	360-12	661-8	1037-12
Khadialapura	202	20	222	278-4	344-12	1166-13	1789-13
Wasna	1111	219	1330	2711-14	334-9	1663-11	4710-2
Sokhada	840-4	338-12	1179	254	200-10	2426-12	2881-6
Undhela	200	126	326	926-8	[illegible]		1079-10	2382-2
Vansar	121		121	306-8	66-8	619-2	992-2
Sandhana	45		45	393-[illegible]	38-12	1663-8	2095-12
Radhawanaj	253-2 in house	12 6	271-2	8[illegible]	[illegible]-12	1378-12	2597
Antroli	71-8		71-8	[illegible]	[illegible]-4	696-14	914-2
Khandoli	211	[illegible]7	[illegible]4	[illegible]2	[illegible]-12	1160-8	1663-8
Laval	28		28	[illegible]8	[illegible]4	984-15	1132-3
Maliataj	197	1-8	198-8	[illegible]552	[illegible]11	979-8	1285-8
Alindra	241		241	2131		1749-8	3880-8
	5,825-13	1,577-4	7,403-1	9,914-4	2,808-9	20,518-8	33,241-5

Note:—Income in kind is calculated at current market price of the commodities used by the farmer.

Matar Group

Non-Agricultural

Fodder							*Dairy*			*Labour*					
Realised cash	Given in debt	Kept in house	Total	Bullock's manure	Cart hire	Total Agricultural income	In cash	In kind	Total	In cash	In kind	Subsidiary occupation	Miscellaneous	Total Non-agricultural income	Grand Total
Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.
19		464-10	483-10	72	55	2463-13	947-8	636	1583-8	485	18	565		2651-8	5115-5
17		918-4	935-4	69	30	5244-10	1041	499-4	1540-4	160		351	8	2059-4	7303-14
-10	24-8	255-10	280-12	25-4	25	1970-1	148	210	358	295		120		773	2743-1
		156	156	15		1332-12	320	218	538			62-8		600-8	1933-4
2		415-12	417-12	59-14		1686-6	278	203-10	481-10	263		31		775-10	2462
48	92	487-4	627-4	55-7	60	2754-8	660	520-9	1180-9	160		433		1773-9	4528-1
33		704-4	737-4	52-12	25	6855-2	661	547-4	1208-4	400	100	329	526	2563-4	9418-6
		669-8	669-8	139-7	202	5071-5	667	915-1	1582-1	550		131	150	2413-1	7484-5
		451-8	[illegible]-8	123-12		3283-6	544-8	748-12	1293-4	75		31	148	1547-4	4830-10
		215-8	215-8	33-5	25	1386-15	640	394-11	1034-11	104-8	30	174-8		1343-11	2730-10
57		553-7	610-[illegible]	79-6	20	2850-9	1053	602-2	1655-2	691		620	153	3119-2	5969.11
		437-10	[illegible]	[illegible]6-13	55	3427-9	614-4	[illegible]	1207-15	210		257		1704-15	5132-8
26		[illegible]	[illegible]	[illegible]4	60	1275-3	358	128-4	486-4	389	33	29		[illegible]-4	2261-7
5		460	[illegible]	[illegible]		2391-8	802	626-9	1428-9			144		1641-9	4033-1
		[illegible]	[illegible]	[illegible]3	74	[illegible]-8	663	464-13	1127-13	29-8	[illegible]	46		[illegible]	2929-13
20		[illegible]	[illegible]	[illegible]-8	10	1975	42	265-12	307-12	40				[illegible]2	2457-12
44		749-12	793-12	117	89	5121-4	1607-8	682-8	2290	108		536-8		2934-8	8055-12
271-10	116-8	7,834-6	8,222-8	1,168-9	730	50,765-7	11,046-12	8,256-14	19,303-10	3,960	217	3,860-8	1,283	28,624-2	79,389-9

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Printed by Mohanlal Maganlal Bhatta at the Nav[illegible]n Press, Ahmedabad
Published by Narahari D. Parikh, Gujarat Vidyapith, Ahmedabad.